

```

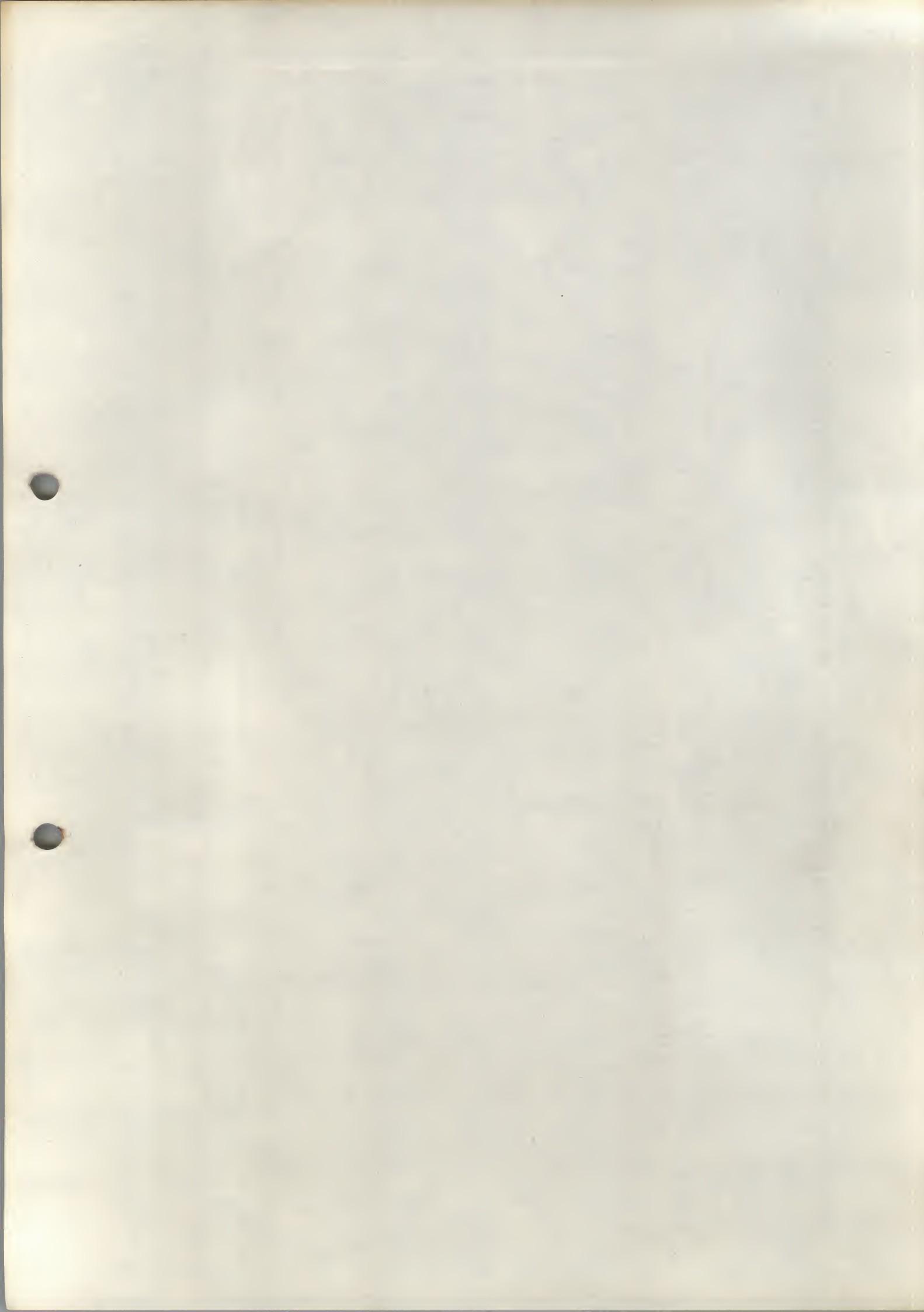
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128      /20000 +-----+
129      / | SYSTEM |
130      / |11000 |-----+
131      / | ARRAY |
132      / | SPACE |
133      / |-----+
134      / | FREE |
135      / |-----+
136      / | CODIFIED |
137      / | BASIC |
138      / |-----+
139      / | SYMBOL |
140      / | TABLE |
141      / |-----+
142      / | LINERUF |
143      / |-----+
144      / | STACK |
145      / |-----+
146      / | FORLIST |
147      / |-----+
148      / | GOLIST |
149      /17756 +-----+
150      / | RIM |
151      / | LOADER |
152      / |17777 |-----+
153
154
155
156
157      /4220
158      /4201
159      /4322
160      /4323
161      /4404
162      /4105
163      /4106
164      /4107
165      /4112

```

```

166      /4110  *<
167      /4111  *>
168      /4111  *>
169      /4112  <>
170      /4213  (MINUS)
171      /4214  (DONE)
172      /4015 ,
173      /4016 /
174      /4017 )
175      /4021 TO
176      /4022 STEP
177      /4023 (
178      /4024 FN
179      /4025 COS
180      /4026 TAN
181      /4027 ATN
182      /4030 LOG
183      /4031 EXP
184      /4032 SQR
185      /4033 ABS
186      /4034 SGN
187      /4035 INT
188      /4036 RND
189      /4037 SIN
190      /6002 (CRLF)
191      /6003 \
192      /6001 END
193      /6002 FOR
194      /6003 GOSUB
195      /6004 GOTO
196      /6004 THEN
197      /6005 IF
198      /6206 INPUT
199      /6007 LET
200      /6010 NEXT
201      /6011 PRINT
202      /6012 RETURN
203      /6013 STOP
204      /6014 DIM
205      /6015 RESTORE
206      /6017 DEF
207      /6022 READ
208      /6021 DATA
209      /6022 (EXIT)
210      /6023 (EOF)
211
212
213
214      0203 FEXIT=20000
215      0240 FSNE=2142
216      0253 FSOD=0150
217      0100 FSCE=2120
218      2110 FSLT=0110
219      0140 FSGT=2140
220      0150 FSLE=0150

```



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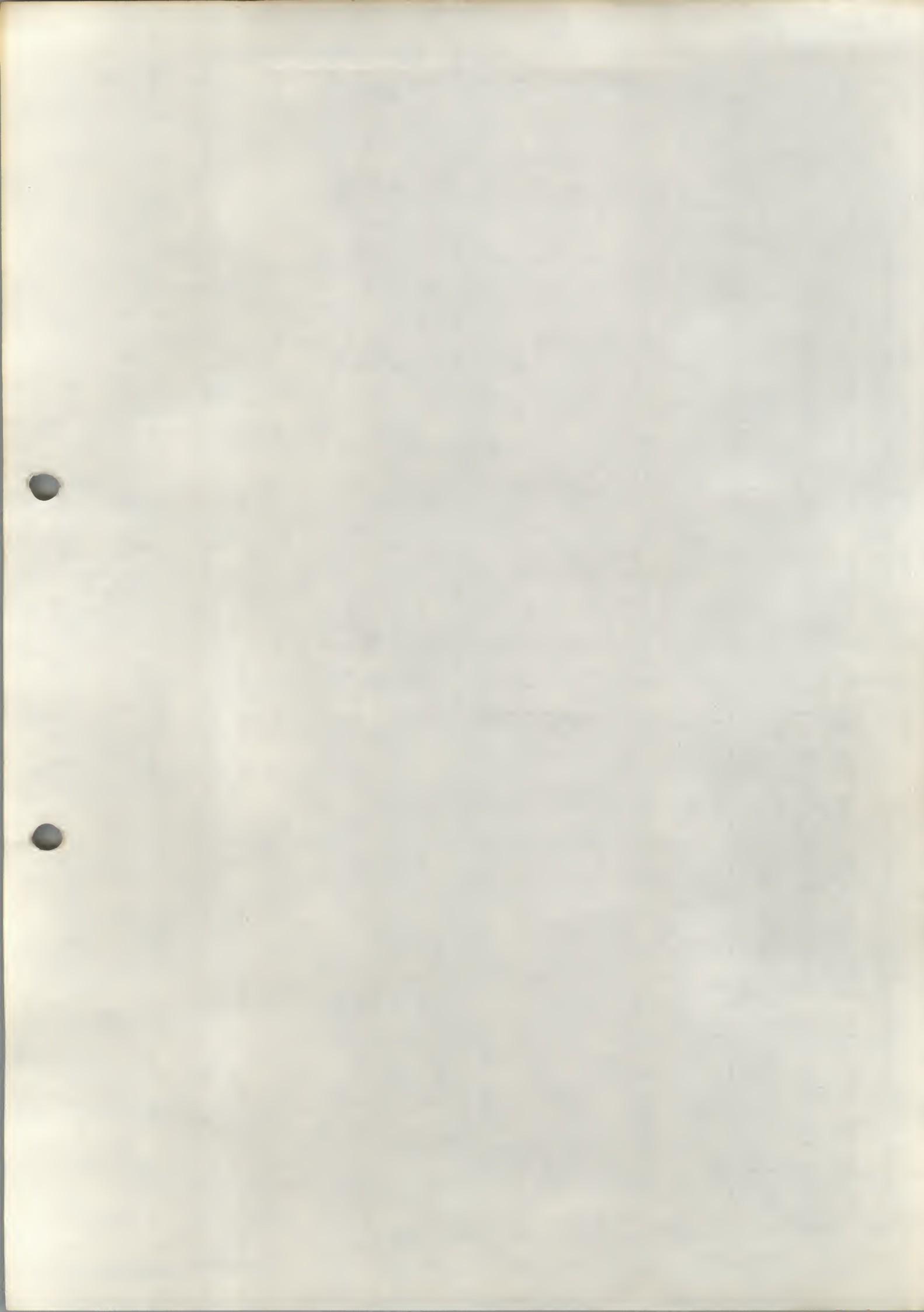
221      1002  FJMP=1000
222      1002  FJMPI=1400
223      2000  FST=2000
224      2400  FSTI=2400
225      3200  FLD=3200
226      3202  FLDI=3202
227      4000  FAD=4000
228      4002  FADI=4002
229      5000  FSZ=5000
230      5400  FSBI=5400
231      6000  FMP=6000
232      6400  FMPI=6400
233      7200  FOV=7200
234      7600  FOVI=7600
235      8000  FDR=8000
236      8600  BKWD=8600
237
238
239
240
241      6530  ADCL=6530
242      6531  ADLW=6531
243      6532  ADST=6532
244      6533  ADRB=6533
245      6534  ADSK=6534
246      6535  ADSE=6535
247      6536  ADLE=6536
248      6537  ADRS=6537
249      6250  DILC=6050
250      6051  DICD=6051
251      6052  DISD=6052
252      6053  DILX=6053
253      6054  DILY=6054
254      6055  DIXY=6055
255      6056  DILE=6056
256      6057  DIRE=6057
257      6134  CLEN=6134
258      6135  CLAB=6133
259      6132  CLCE=6132
260      6130  CLZE=6130
261      6131  CLSK=6131
262      6137  CLCA=6137
263      6135  CLSA=6135
264      6136  CLBA=6136
265
266
267
268
269
270
271
272
273
274
275      0000  *0

```

```

276
277      00000 0000      0
278      00021 5402      JMP I .+1
279      00022 6600      INTER
280
281      00023 0000      ARRLOC, 0
282      00004 0000      CODELOC, 0
283      00025 0000      PSYMTAB, 0
284      00026 0000      NSYMTAB, 0
285      00037 0215      0215, 215
286      00010 0212      0212, 212
287      00011 0260      0260, 260
288      00012 0200      OV, 0
289      00013 0000      INDEX1, 0
290      00014 0000      INDEX2, 0
291      00015 0000      DISAUTO, 0
292      00016 0000      AC3, 0
293      00017 0000      AC2, 0
294      00020 0000      AC1, 0
295      00021 0000      OP3, 0
296      00022 0000      OP2, 0
297      00023 0000      OP1, 0
298      00024 0000      ACS, 0
299      00025 0000      ACE, 0
300      00026 0000      OPS, 0
301      00027 0177      0177, 177
302      00030 0000      OPE, 0
303      00031 0000      TMP, 0
304      00032 7281      PGETCH, GETCH
305      00033 0741      PPUTCH, PUTCH
306      00034 0000      DIMFLAG, 0
307      4435      FENTER=JMS I .SFPT
308      00035 4200
309      00036 0000      PDL, 0
310      00037 7512      PLINBUF, LINBUF
311      00040 0266      MLINBUF, LINBUF
312      00041 0135      MENDLIN, ENDLIN
313      00042 0000      PRTEMP, 0
314      00043 0000      DECEXP, 0
315      00044 5335      PNUMBUF, NUMBUF
316      00045 0000      LOCCTR, 0
317      00046 0000      READLOC, 0
318      00047 7363      PARGERR, ARGERR
319      00050 0000      WORD, 0
320      00051 0240      0240, 240
321      00052 0000      LINEND, 0
322      00053 0000      GOTEMP, 0
323      00054 7740      07740, 7740
324      00055 7770      07770, 7770
325      00056 0000      EPTR, 0
326      00057 0000      FPTR, 0
327      00060 0000      GPTR, 0
328      00061 0000      HPTR, 0
329      00062 0002      02, 2
330      00063 0000      FORCT, 0

```



```

331 22054 2000 SNUMFLG,0
332 20065 0012 012, 12
333 20066 0000 LOOP, 0
334 20067 0000 ADDRESS,0
335 22070 0017 077, 77
336 22071 0077 0377, 377
337 20072 0007 07, 7
338 00073 0000 OPERAND,21010
339 22074 7120
340 22075 2000
341 00074 7501 PTEXT, XYTEXT
342 20075 4142 PEROR, ERROR
343 20076 5041 PRERR, SYERR
344 20101 1201 PEVAL, EVAL
345 20102 1403 PGETADR,GETADR
346 20103 2213 PEXECUT,EXECUTE
347 20104 2364 PPUSH, PUSH
348 00105 3551 PPOP, POP
349 20106 0744 PFIX, FIX
350 20107 1202 PGOTPR,GCOTPR
351 22110 2072 PASSCR,PASSCR
352 20111 1015 PGETPR,GETPR
353 20112 2341 PSTOVAR,STOVAR
354 20113 2311 PGETVAR,GETVAR
355 00114 3702 PPRINTX,PRINTXT
356 00115 1674 PGETBLK,GETBLK
357 20116 2707 PSLOOP, SLOOP
358 00117 5000 POUTNUM,BUTNUM
359 20120 2405 PEDIT, EDIT
360 00121 6430 PSTICKI,STICKI
361 22122 3113 PNORMLN,NONBLNK
362 22123 3717 PPRINUM,PRINUM
363 20124 2603 PGETLIN,GETLIN
364 20125 7640 PPOLIST,PDLIST
365 20126 0000 COLUMN, 0
366 00127 2000 INDEV, 0
367 20130 2000 OUT02, 0
368 20131 0000 OUTDEV, 0
369 20132 2000 IOEV, 0
370 20133 2000 CNTLD, 0
371 20134 2000 NOINT, 0
372 22135 2000 RBSWCH, 0
373 00136 0000 DISB, 0
374 22137 7116 PRESET, RESET1
375 22142 7065 SPECINT,CCINTK
376 22141 7326 PCONT, COWT
377 22142 7146 DELOUT, OUTDEL
378 00143 0360 CNCLR, CLRNCY
379 20144 6413 SPLFT, RMLEFT
380 00145 0300 PTEN, TEN
391 22146 6600 PANORM, ANORM
382 00147 4402 PARI, AR1
383 00150 4654 PALI, AL1
384 00151 2014 ONE, 2014
385 00152 0000 ZERC, 01010

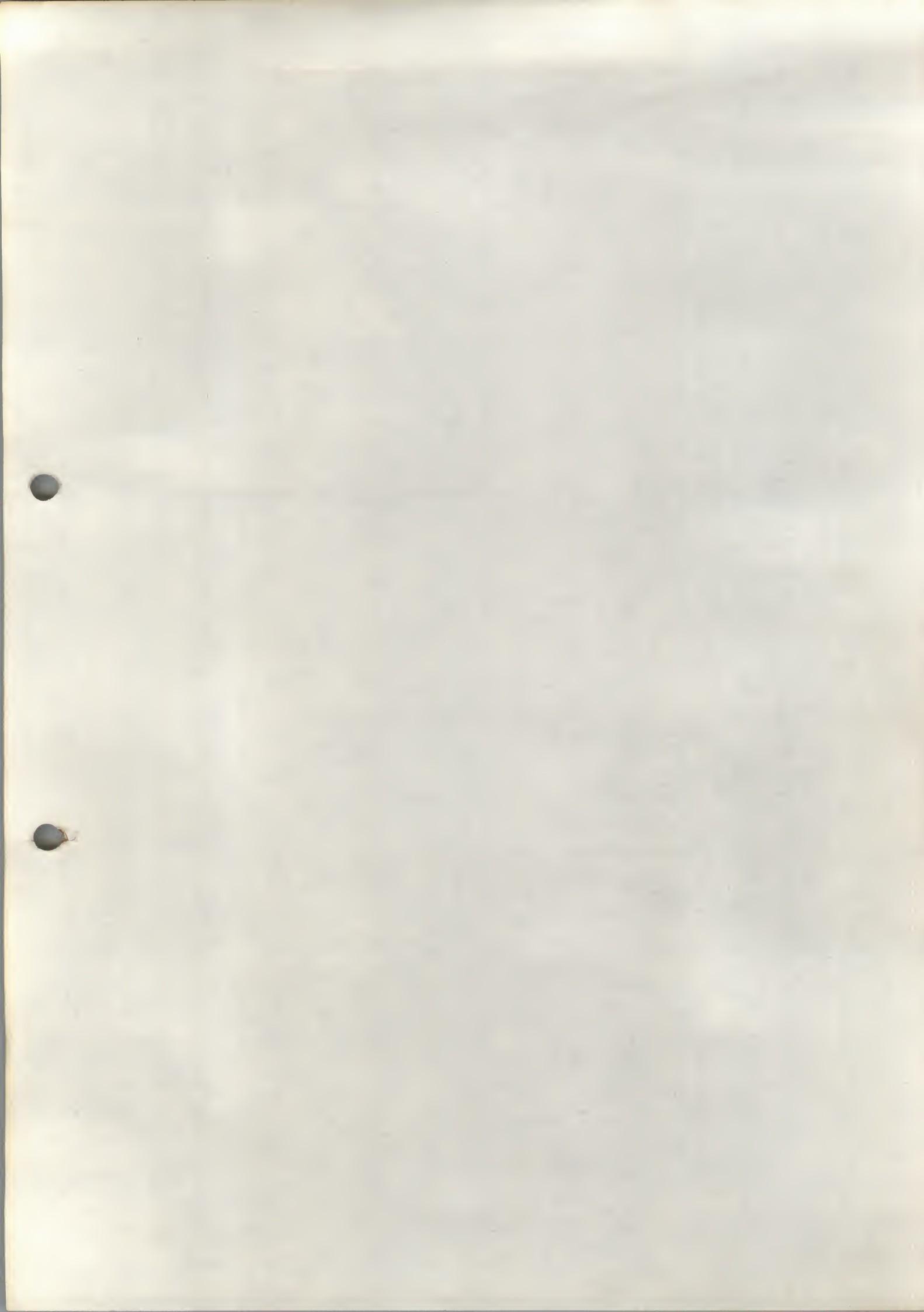
```

/THIS PREVENTS INTERRUPTS DURING CRITICAL TIMES.

```

386 00153 0000
387 00154 0000
388 00155 0200 0200, 200
389 00156 0000 FFFLAG, 0
390 00157 4435 PADD, OADD
391 00160 2204 04, 4
392 20161 2330 PLINFIX,LINIFIX
393 00162 7745 07745, 7745
394 20163 6400 PCHKFIT,CHKFIT
395 22164 7725 PGOLIST,GOLIST
396 20165 0000 GSBPTR, 0
397 0001 GET*1
398 4560 ISIT=JMS I ,XISIT;XGISIT
399 00166 4273
400 00167 4266
401 4570 MUSTBE=JMS I ,XMUST;XGMUST
402 20170 7352
403 00171 7345
404 20172 7563 PLBEGIN,LBEGIN
405 20173 0214 MLBEGIN,LBEGIN-1
406 00174 0074 MLEND, -ENOPDL
407 00175 4104 PISITL,IISITLIT
408
409
410
411
412
413
414
415 0200 PAGE
416
417 0177 *.*1
418
419
420 00177 2000 GETWD, 0
421 20200 1445 TAD I LOCCTR
422 00221 3050 DCA WORD
423 00222 2245 ISZ LOCCTR
424 20223 5577 JWP I GETWD
425 00224 0205 PLETDO, LETDO
426 00225 4570 LETDO, MUSTBE /**/
427 20226 3673 3673
428 00227 4501 JMS I PEVAL
429 20210 4570 MUSTBE /(CR) OR /*/
430 00211 2000 2000
431 20212 4341 JMS STOVAR
432 00213 4177 EXECUTE,JMS GETWD
433 20214 1224 TAD PLETDO
434 00215 3311 DCA GETVAR
435 20216 1450 TAD I WORD
436 00217 7510 SPA
437 20220 5231 JWP KEYWD
438 00221 7640 SZA CLA /IS IT A LINENO
439 00222 5313 JMP NOTKWD /NO
440 00223 1050 TAD WORD

```



/BASIC,L8E

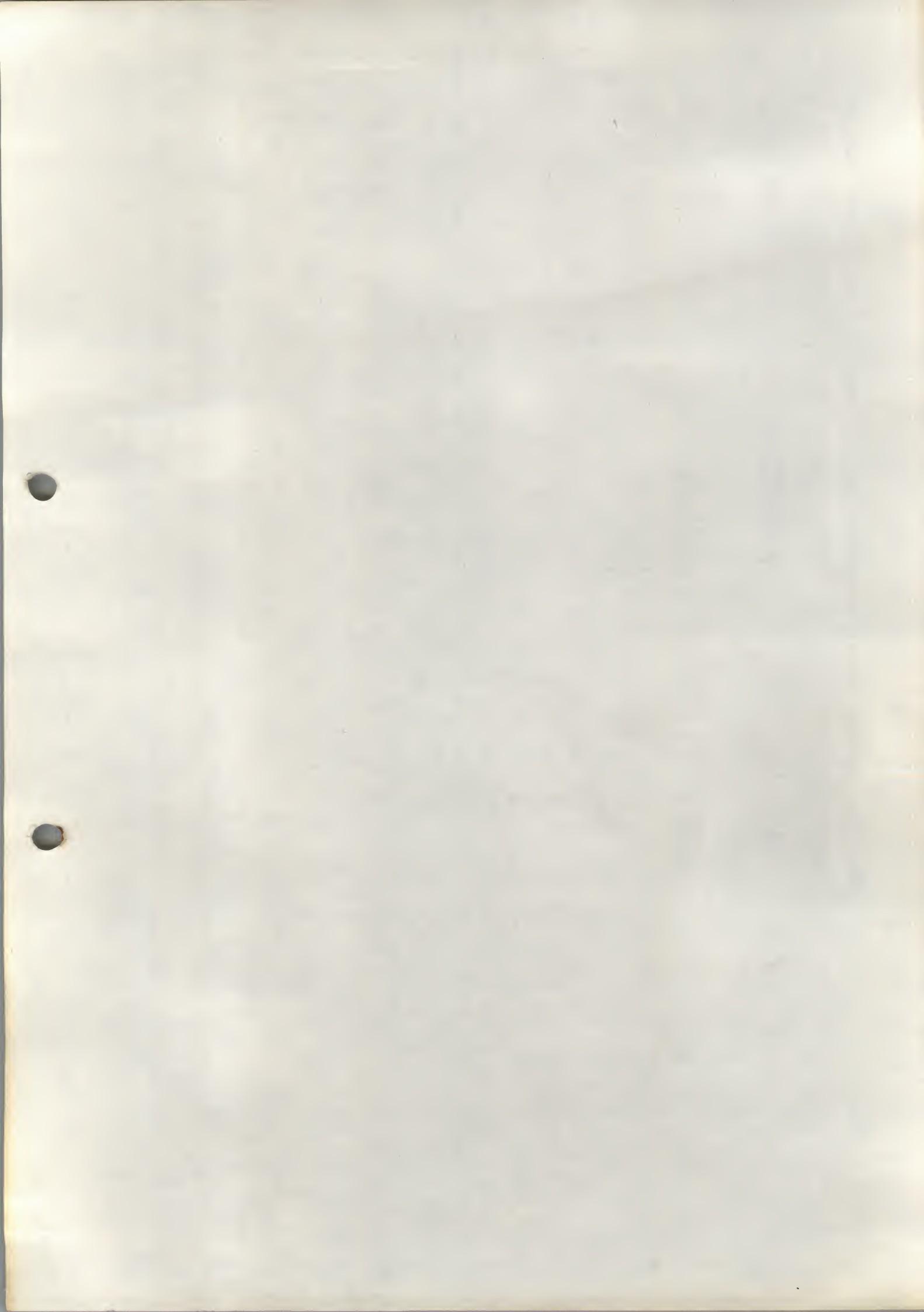
PAL8-V9 / / PAGE 1-8

441	00228	3252	DCA	LINENO
442	00229	4177	JMS	GETWD
443	00226	1450	TAD I	WORD
444	00227	7720	SHM CLA	
445	00230	5313	JMP	NOTKND
446	00231	7332	CLA CLL CML RTR	
447	00232	1452	TAD I	WORD
448	00233	7420	SNL	/IS IT A STATEMENT WORD
449	00234	5500	JMP I	PSXERR /NO
450	00235	1240	TAD	SJUMP
451	00236	3237	DEA	.+1
452	00237	7422	HLT	
453	00238	5641	SJUMP,	JMP I .+1
454	00241	0213	EXECUTE	
455	00242	2557	END	
456	00243	0213	FOR	
457	00244	3525	GOSUB	
458	00245	0517	GOTO	
459	00246	2375	IF	
460	00247	4207	INPUT	
461	00250	0312	LEY	

/BASIC,L8E

PAL8-V9 / / PAGE 2

462	00251	0600	NEXT	
463	00252	2173	PRINT	
464	00253	0677	RETURN	
465	00254	2570	STOP	
466	00255	6472	DIM	
467	00256	3773	RESTORE	
468	00257	0467	SKIPIT	
469	00260	1576	DEF	
470	00261	1623	READ	
471	00262	0467	SKIPIT	
472	00263	2402	EXIT	
473	00264	2570	STOP	
474	00265	7173	TTYIN	
475	00266	7165	TTYOUT	
476	00267	7163	LPTOUT	
477	00270	7164	PTROUT	
478	00271	7172	PTRIN	
479	00272	6441	SXERR	
480	00273	5573	RUBO	
481	00274	5574	MCRUBO	
482			IFNZRO MACHINE<	
483			CLEAR	
484			DELAY	
485			USE	
486			PLOT	
487			REALTIME	
488			SETRATE	
489			SETCLOCK	
490			WAITC	
491			WAIT	
492			SXERR	
493			/*UCOM --- USER COMMAND,	
494			ACCEPT	
495			REJECT>	
496				
497				
498				
499			IFZERO MACHINE<	
500				
501	00275	6441	SXERR	
502	00276	6441	SXERR	
503	00277	6441	SXERR	
504	002320	6441	SXERR	
505	002321	6441	SXERR	
506	002322	6441	SXERR	
507	002323	6441	SXERR	
508	002324	6441	SXERR	
509	002325	6441	SXERR	
510	002326	6441	SXERR	
511	002327	6441	SXERR	
512	002328	6441	SXERR	
513				
514				
515				
516				



```

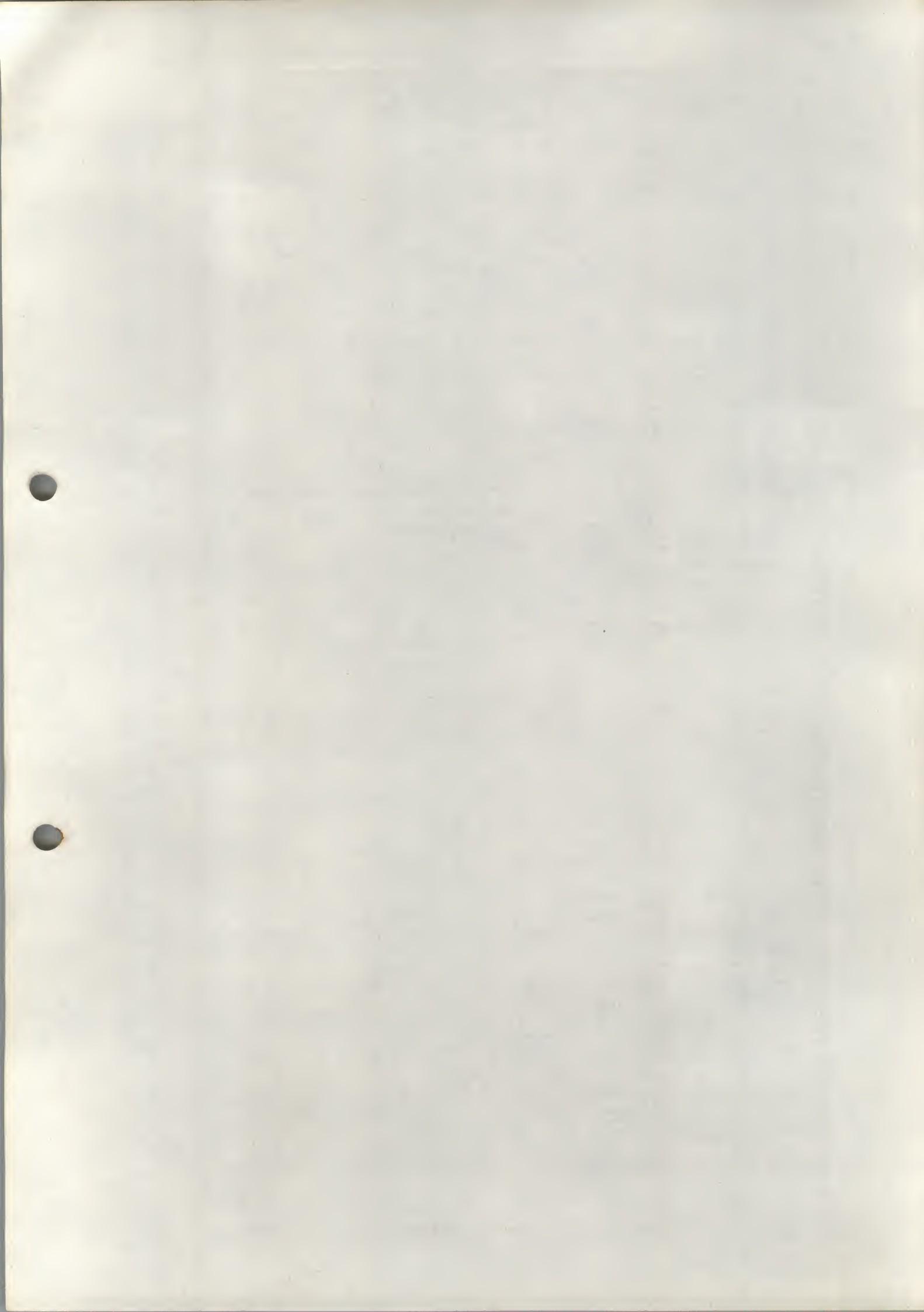
517 00311 2000 GETVAR, 0
518 00312 4177 LET, JMS GETWD
519 00313 4570 NOTKWD, MUSTBE /* VARIABLE
520 00314 7320 TAD WORD
521 00315 1050 DCA VR
522 00316 3743 DCA SSONE
523 00317 3746 DCA SSTWO
524 00318 3345 DCA SSTWO
525 00319 4567 GET+ISIT /* */
526 00320 3755 3755
527 00321 5711 JMS I GETVAR AND
528 00322 4561 JMS I PEVAL
529 00323 4556 JMS I PREFIX
530 00324 3344 DCA SSONE
531 00325 4566 ISIT /* */
532 00326 3755 3763
533 00327 5335 JMP NOCOMMA AND
534 00328 4571 JMS I PEVAL
535 00329 4595 JMS I PREFIX
536 00330 3345 DCA SSTWO
537 00331 4570 NOCOMMA,MUSTBE /* */
538 00332 3761 3761
539 00333 4177 JMS GETWD
540 00334 5711 JMP I GETVAR
541 00335 0000 STOVAR, 0
542 00336 4562 JMS I PGETADOR
543 00337 2000 VAR, 0
544 00338 0000 SSONE, 0
545 00339 0000 SSTWO, 0
546 00340 4435 FENTER
547 00341 2467 FSTI ADDRESS
548 00342 0000 FEYIT
549 00343 5741 JMP I STOVAR
550 00344 4477 FNERR, JMS I PERROR
551 00345 0625 TEXT "FUNCTION"
552 00346 1603
553 00347 2411
554 00348 1716
555 00349 2000
556 00350 2000 CLRONT, 0 /* ROUTINE WHICH CHECKS STATUS OF CONTROL C FLAG.
557 00351 7221 CLA IAC
558 00352 1134 TAD NOINT /* WAS IT SET TO -1?
559 00353 7650 SNA CLA
560 00354 5767 JMP I PBOMB
561 00355 3134 DCA NOINT /* YEP, GIVE STOP MESSAGE.
562 00356 5760 JMP I CLRONT /* NOPE, RESET IT.
563
564 00357 6670 PBOMB, CNTLOR /* AND EXIT
565
566
567
568
569
570 00358 4477 SPACERR,JMS I PERROR
571 00359 2417 TEXT "TOO-BIG"

```

```

572 00372 1755
573 00373 0211
574 00374 0700
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591 00375 4501 IF, JMS I PEVAL
592 00376 4435 FENTER
593 00377 2073 FST OPERAND
594 00402 0000 FEYIT
595 00401 4570 MUSTBE /* THEN*
596 00402 1774 1774
597 00403 1273 TAD OPERAND
598 00404 7750 SPA SNA CLA
599 00405 5267 JMP SKIPIT
600 00406 4567 GET+ISIT /* LINENO
601 00407 0000 0000
602 00410 5612 JMP I XEXECU
603 00411 5320 JMP GOT0+1
604 00412 2214 XEXECU, EXECUTE+1
605 00413 4571 FOR, GET+MUSTBE /* VARIABLE
606 00414 7200 7200
607 00415 4357 JMS FINDIT
608 00416 5235 JMP NOTHERE
609 00417 7201 CLA IAC
610 00420 1013 TAD INDEX1
611 00421 3014 DCA INDEX2
612 00422 7240 CLA CHA
613 00423 1013 TAD INDEX1
614 00424 3013 DCA INDEX1
615 00425 5232 JMP INLUFP
616 00426 1414 LUFP, TAD I INDEX2
617 00427 3415 DCA I INDEX1
618 00428 1414 TAD I INDEX2
619 00431 3413 DCA I INDEX1
620 00432 2553 INLUFP, ISZ GOTEMP
621 00433 5220 JMP LUFP
622 00434 2063 ISZ FORCT
623 00435 1263 NOTHERE,TAD FORCT
624 00436 1324 TAD O11
625 00437 7750 SPA SNA CLA
626 00440 5301 JMP FORERR /* CAN'T FIT 9 IN FORLIST

```



```

627 00441 1050      TAD     WORD
628 00442 7241      CIA
629 00443 3413      DCA I  INDEX1
630 00444 1050      TAD     WORD
631 00445 3252      DCA     FORVAR
632 00446 4571      GET+MUSTBE /*P*
633 00447 3673      3673
634 00450 4501      JMS I  PEVAL
635 00451 4502      JMS I  PGETADDR
636 00452 0000      FORVAR, 0
637 00453 2200      0
638 00454 2200      0
639 00455 4455      FENTER
640 00456 2007      FSTI   ADDRESS
641 00457 0200      FEXIT
642 00460 4570      MUSTBE /*TO*
643 00461 3757      3757
644 00462 1045      TAD     LOCCTR
645 00463 3413      DCA I  INDEX1
646 00464 7240      CLA CMA
647 00465 1063      TAD     FORCT
648 00466 3063      DCA     FORCT
649
650
651
652
653
654 00467 4671      SKIPIT, JMS I  PIGNORE
655 00470 5503      JMP I  PEXECUTE
656
657
658
659 00471 2115      PIGNORE,IGNORE
660
661
662
663
664
665
666 00472 0000      PASSCR, 0
667 00473 4671      JMS I  PIGNORE
668 00474 2050      ISZ     WORD
669 00475 4566      ISIT
670 00476 4100      4100
671 00477 5273      JMP    /*A
672 00500 5672      JMP I  PASSCR
673
674
675
676
677
678
679
680
681

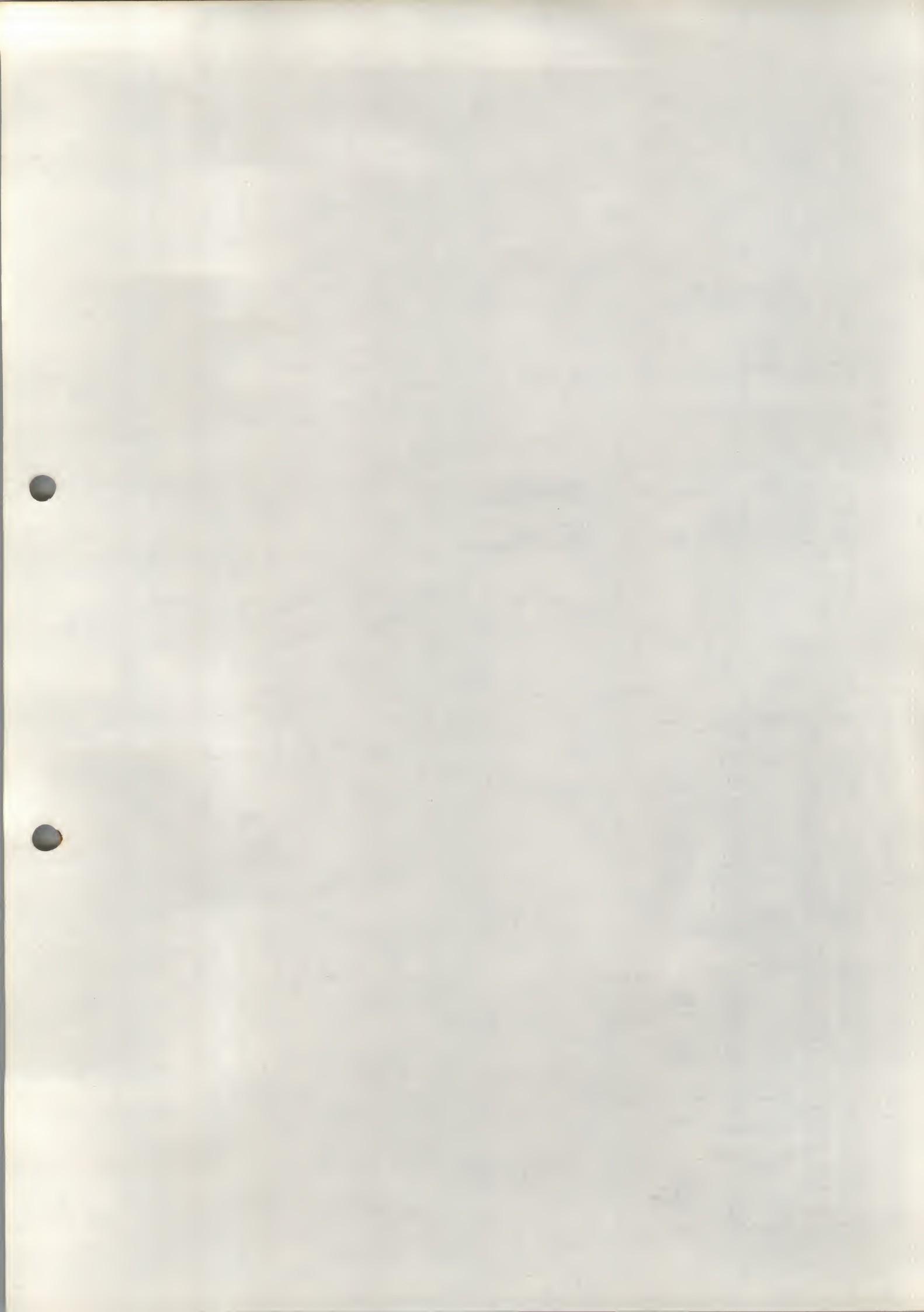
```

/LOOK FOR "\N" OR C.R.
/AND EXECUTE THE NEXT STATEMENT.

```

682
683 00501 4477      FORERR, JMS I  PERROR
684 00502 0617      TEXT 'FOR'
685 00503 2200
686 00504 0011      011, 11
687 00505 4177      GOSUB, JMS     GETWD
688 00526 4332      JMS     GOBOTH
689 00527 1165      TAD     GSBPTR
690 00510 1325      TAD     MGSBEND
691 00511 7650      SNA CLA
692 00512 5326      JMP    DEEPERR
693 00513 1045      TAD     LOCCTR
694 00514 3565      DCA I  GSBPTR
695 00515 2165      ISZ     GSBPTR
696 00516 5321      JMP    GOTOD2
697 00517 4177      GOTO, JMS     GETWD
698 00520 3332      JMS     GOBOTH
699 00521 2053      ISZ     GOTEMP
700 00522 1453      TAD I  GOTEMP
701 00523 3245      DCA     LOCCTR
702 00524 5503      JMP I  PEXECUTE
703 00525 0223      MGSBEND, GSBEND
704 00526 4077      DEEPERR, JMS I  PERROR
705 00527 0717      TEXT 'GOSUB'
706 00530 2325
707 00531 2200
708 00532 0000      GOBOTH, 0
709 00533 4570      MUSTBE /* LINENO
710 00534 0000      0200
711 00535 1050      TAD     WORD
712 00536 3053      DCA     GOTEMP
713 00537 2050      ISZ     WORD
714 00540 4560      ISIT
715 00541 0000      0200
716 00542 5350      JMP    ISITOF
717 00543 4077      JMS I  PERROR
718 00544 1411      TEXT 'LINENO'
719 00545 1605
720 00546 1617
721 00547 0300
722 00550 4571      ISITOF, GET+MUSTBE /*(CR) OR "\N"
723 00551 2000      2000
724 00552 5732      JMP I  GOBOTH
725 00553 0000      VARTEMP, 0/0/0
726 00554 0000
727 00555 0000
728 00556 7704      PXFORLI, FORLIST=1
729 00557 0000      FINDIT, 0
730 00562 1063      TAD     FORCT
731 00561 3253      DCA     GOTEMP
732 00562 1356      TAD     PXFORLIST
733 00563 3013      DCA     INDEX1
734 00564 5372      JMP    INLOOP
735 00565 1413      FINDLUP, TAD I  INDEX1
736 00566 1050      TAD     WORD

```



```

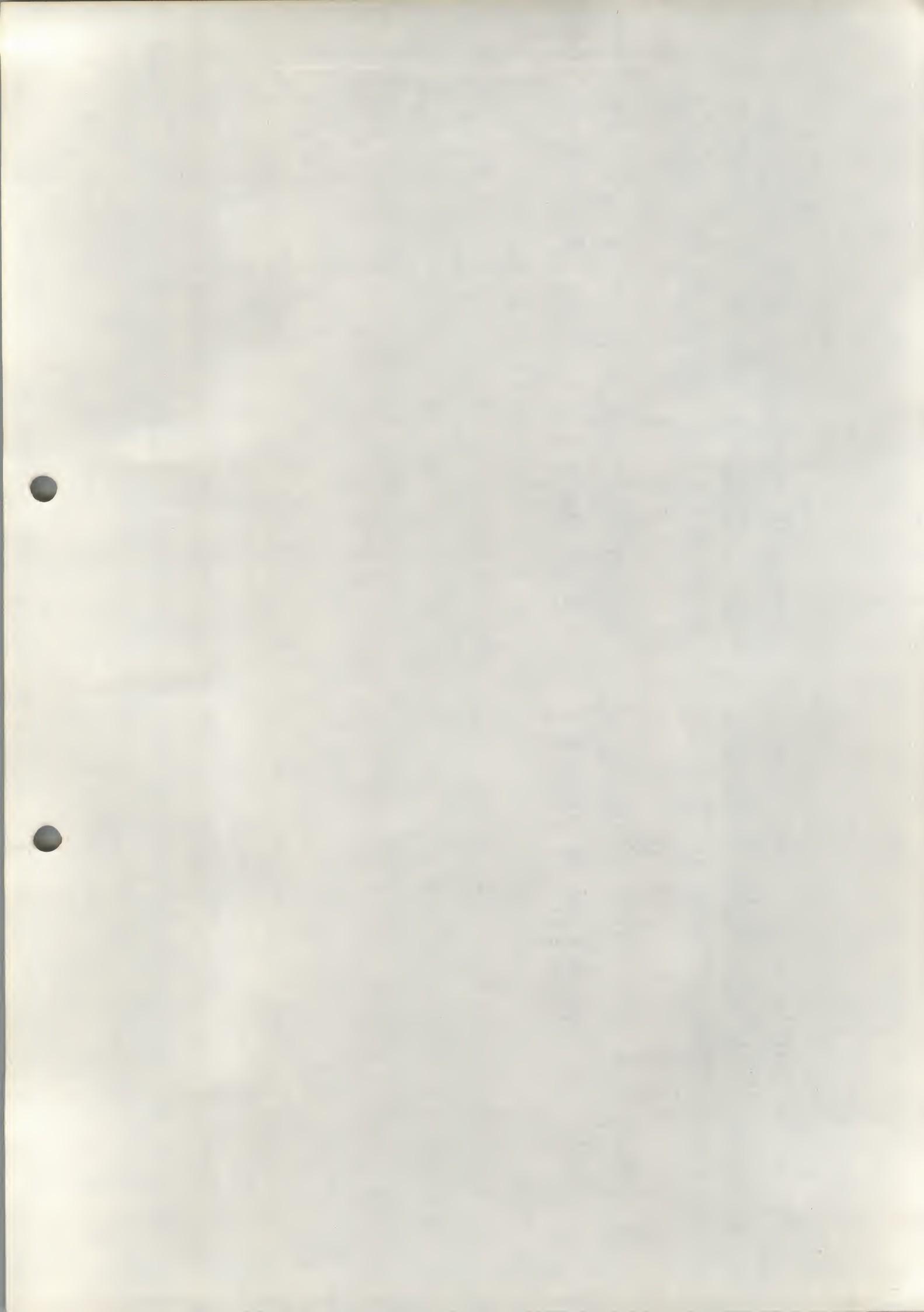
737 02567 7650      SNA CLA
738 02570 5375      JMP    FOUND
739 02571 2015      ISZ   INDEX1
740 02572 2253      INLOOP, ISZ   GOTEMP
741 02573 5345      JHS   FINDUP
742 02574 5757      JAD I FINDIT
743 02575 2357      FOUND, 132   FINDIT
744 02576 5757      JMP I FINDIT
745
746 02620      PAGE
747
748 02687 4571      NEXT,  GET+MUSTBE  /* VARIABLE
749 02688 7283      7282
750 02689 4672      JMS I PFINDIT
751 02693 5273      JMP   NEXTERR
752 02694 1250      TAD   WORD
753 02695 3237      DCA   NEXTVAR
754 02696 4571      GET+MUSTBE  /*(CR) OR "\"
755 02697 2000      2020
756 02698 1045      TAD   LOCCTR
757 02699 3271      DCA   LOCTEMP
758 02700 1415      TAD I INDEX1
759 02701 3245      DCA   LOCCTR
760 02702 4501      JMS I PEVAL
761 02703 4035      FENTER
762 02704 2373      FST+FWD+FORLIM=,
763 02705 0200      FEXIT
764 02706 4566      ISIT   /*(CR) OR "\"
765 02707 2020      2020
766 02708 5226      JMP   TRYSTEP AND
767 02709 4435      FENTER
768 02710 3151      FLD   ONE
769 02711 1207      FJMP+FWD+GOTSTEP=
770 02712 4570      TRYSTEP,MUSTBE /*STEP
771 02713 3756      3756
772 02714 4521      JMS I PEVAL
773 02715 4570      MUSTBE /*(CR) OR "\"
774 02716 2000      2020
775 02717 4435      FENTER
776 02718 2270      GOTSTEP,FST+FWD+FORSTEP=
777 02719 0200      FEXIT
778 02720 4502      JMS I PGETADDR
779 02721 0200      NEXTVAR,2
780 02722 0200      0
781 02723 0200      0
782 02724 4435      FENTER
783 02725 3467      FLDI   ADDRESS
784 02726 4260      FAD+FWD+FORSTEP=
785 02727 2672      FST+FWD+,-VARTEMP
786 02728 5253      FSBD+FWD+FORLIM=-
787 02729 0200      FEXIT
788 02730 1024      TAD   ACS
789 02731 1324      TAD   FORSTEP
790 02732 7700      SMA CLA
791 02733 1020      TAD   AC1

```

```

792 02654 7640      SZA CLA
793 02655 5263      JMP    FORDONE
794 02656 4435      FENTER
795 02657 3704      FLD-BKWD+,,-VARTEMP
796 02658 2467      FSTI   ADDRESS
797 02659 0200      FEXIT
798 02660 5503      JMP I PEXECUTE
799 02661 1271      FORDONE,TAD . LOCTEMP
800 02662 3245      DCA   LOCCTR
801 02663 2063      ISZ   FORCT
802 02664 2253      ISZ   GOTEMP
803 02665 5265      JMP   .-2
804 02666 5503      JMP I PEXECUTE
805 02667 0200      LOCTEMP,0
806 02668 0557      PFINDIT,FINDIT
807 02669 4477      NEXTERR,JMS I PERROR
808 02670 1605      TEXT "NEXT"
809 02671 3024
810 02672 0200
811 02673 4571      RETURN, GET+MUSTBE. /*(CR) OR "\"
812 02674 2000      2020
813 02675 1165      TAD   GSBPTR
814 02676 1320      TAD   MGOLIST
815 02677 0200
816 02678 7650      SNA CLA
817 02679 5313      JMP   RETNERR
818 02680 7240      CLA CMA
819 02681 1165      TAD   GSBPTR
820 02682 3165      DCA   GSBPTR
821 02683 1565      TAD I GSBPTR
822 02684 3245      DCA   LOCCTR
823 02685 5503      JMP I PEXECUTE
824 02686 4477      RETNERR,JMS I PERROR
825 02687 2205      TEXT "RETURN"
826 02688 2425
827 02689 2216
828 02690 2200
829 02691 0200      MGOLIST,-GOLIST
830 02692 0200
831 02693 0200
832 02694 0200      FORSTEP,0/10
833 02695 0200
834 02696 2200      SGN,   0
835 02697 4435      FENTER
836 02698 0100      FSDE
837 02699 3225      FLD+FWD+MN5ONE=,
838 02700 2150      FSLE
839 02701 3151      FLD   ONE
840 02702 2200      FEXIT
841 02703 5726      JMP I SGN
842 02704 6014      MN5ONE, 6014/212
843 02705 0200
844 02706 0200
845 02707 0200      PUTCH, 0
846 02708 3326      DCA   SGN

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/BASIC.LBE

PAL8-V9 / / PAGE 2-7

```
847 00743 1326      TAD      SGN
848 00744 0027  PCOUNT, AND    0177
849 00745 1374      TAD      07763A
850 00746 7640      SZA CLA
851 00747 5357      JHP      /IS IT A C.R.
852 00750 1304      TAD      PROC
853 00751 1126      TAD      PCOUNT
854 00752 3237      DCA      COLUMN
855 00753 3126      DCA      /NEXTVAR
                                COLUMN
```

/BASIC.LBE

PAL8-V9 / / PAGE 3

```
856 00754 1237      TAD      NEVTVAR
857 00755 2376      AND      PUTXRA
858 00756 7112      CLL RAR
859 00757 7172      PADCR, CLL CML CMA RAR
860 00760 3237      DCA      NEVTVAR
861 00761 1326      TAD      SGN
862 00762 2375      AND      0142A
863 00763 7442      SZA
864 00764 1365      TAD      07642A
865 00765 7642  07642A, SZA CLA
866 00766 2126      ISZ      COLUMN
867 00767 1326      TAD      SGN
868 00770 4777      JMS I   JPUTCH
869 00771 2237      ISZ      NEXTVAR
870 00772 5370      JMP      /INCREMENT THE COUNTER
871 00773 5741      JMP I   /GIVE NULLS UNTIL IT'S SATISFIED.
872
873
874 00774 7763  07763A, 7763
875 00775 0140  0140A, 140
876 00776 0200  PUTXRA, 0
877 00777 7202  JPUTCH, PUTER
                                /NULL AFTER C.R. WORD.
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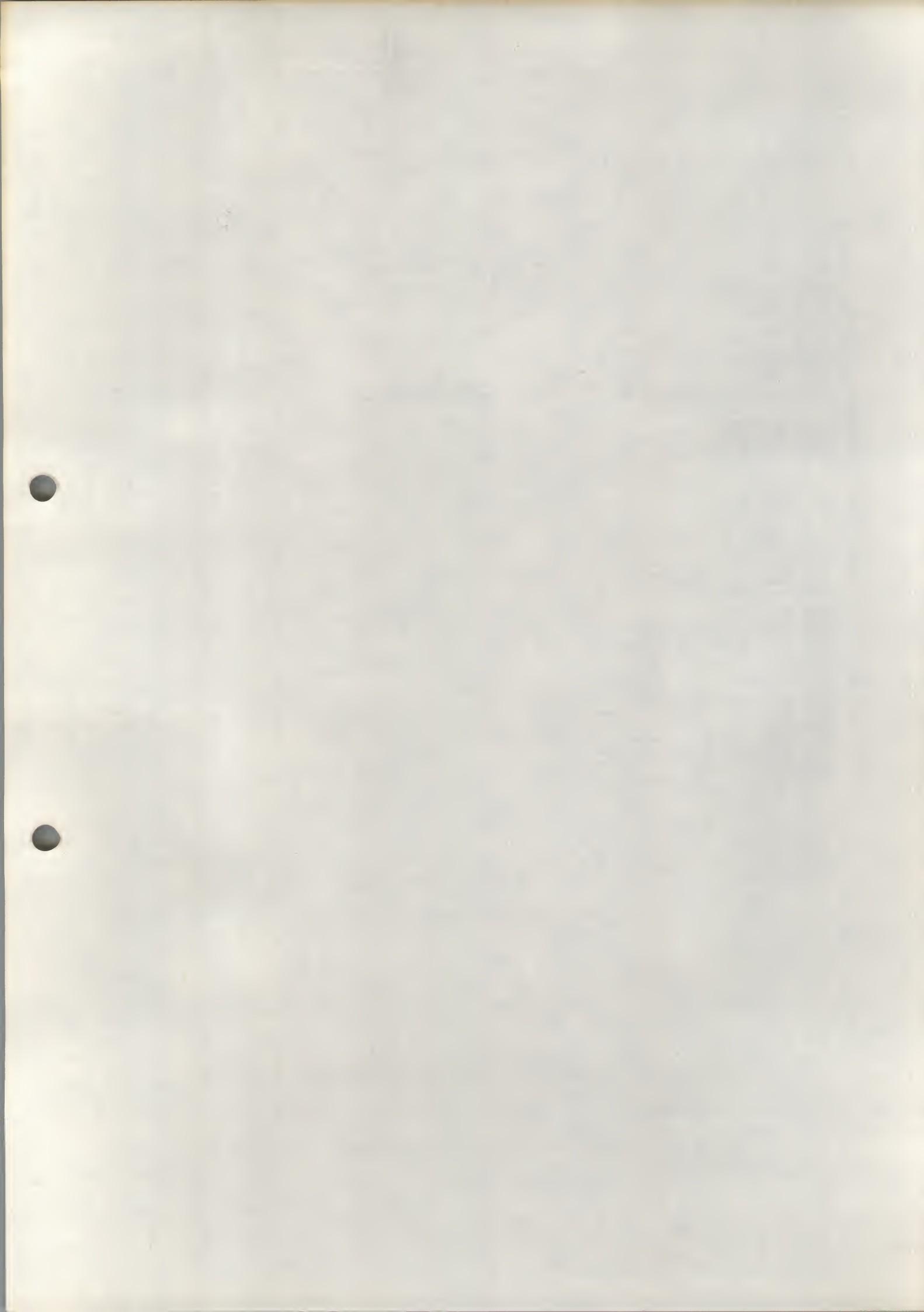
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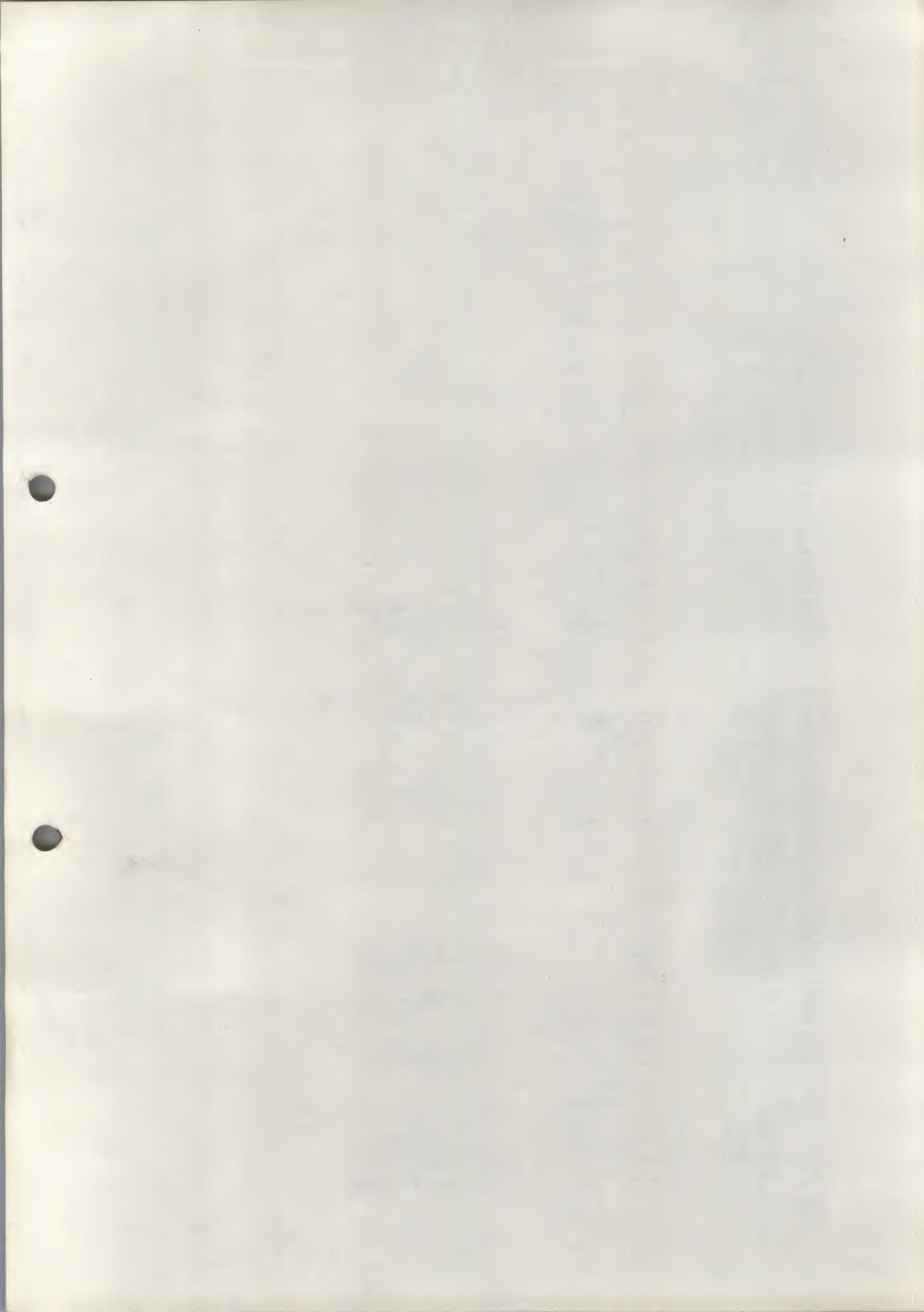
911 01026 4566    ISIT      /*(*
912 01027 3755    JMS      NOPAREN AND
913 01032 5235    JMS      EVAL
914 01031 4224    MUSTBE   /*) *
915 01032 4570    3761
916 01033 3761    JMS I   PGOTOPR
917 01034 5527    JMS I   NOVAR
918 01035 4566    NOPAREN,ISIT  /*A VARIABLE
919 01036 7000    3755
920 01037 5105    JMS      NOTVAR /NO
921 01040 3276    DCA      ONESS
922 01041 3277    DCA      TADSS
923 01042 1250    TAD      WORD
924 01043 3275    DCA      WOTEMP
925 01044 4567    GET+ISIT  /*(*
926 01045 3755    3755
927 01046 5274    JMS      GOTSS /NO
928 01047 1275    TAD      WOTEMP
929 01050 4524    JMS I   PPUSH
930 01051 4224    JMS      EVAL
931 01052 4566    ISIT      /*) *
932 01053 3763    3763
933 01054 5264    JMS      ONEDIM
934 01055 4566    JMS I   PPIX
935 01056 4564    JMS I   PPUSH
936 01057 4224    JMS      EVAL
937 01058 4526    JMS I   PPIX
938 01061 3277    DCA      TWOSS
939 01062 4565    JMS I   PPCP
940 01063 5266    JMS      .+3
941 01064 3277    ONEDIM, DCA  TWOSS
942 01065 4565    JMS I   PPIX
943 01066 3276    DCA      ONESS
944 01067 4570    MUSTBE   /*) *
945 01070 3761    3761
946 01071 4585    JMS I   PPCP
947 01072 3275    DCA      WOTEMP
948 01073 4177    JMS      GETWO
949 01074 4522    GOTSS, JMS I   PGETADDR
950 01075 2000    WOTEMP, 0
951 01076 0700    ONESS, 0
952 01077 2022    TWOSS, 0
953 21100 4435    FENTER
954 01101 3467    FLDI     ADDRESS
955 01102 2000    FEKIT
956 01103 5724    JMS I   .+1
957 01104 1223    OPDONE
958 01105 4575    NOTVAR, JMS I   PISITLIT /ISIT A LITERAL
959 01106 5310    JMS      ISITFUN /NO
960 01107 5507    JMS I   PGOTOPR /IT IS IN THE AC NOW
961 21110 1450    ISITFUN, TAD I   WORD
962 01111 1362    TAD      03754    /*-4024, WHICH IS BEGINNING OF FUNCTIONS,
963 01112 7510    SPA      /IS IT A LEGAL FUNCTION?
964 01113 5500    JMP I   PSXERR  /NO, EXIT WITH MESSAGE.
965 01114 7450    SNA      /WAS IT 'FN'

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966 01115 4177    JMS      GETWD  /YES, SKIP OVER LETTER
967 01116 4534    JMS I   PPUSH
968 01117 4571    GET+MUSTBE  /*(*
969 01120 3755    3755
970 01121 4204    JMS      EVAL
971 01122 4535    JMS I   PPCP
972 01123 1332    TAD      FJUMP
973 01124 3325    DCA      .+1
974 01125 7422    HLT
975 01126 5727    JMP I   .+1
976 01127 1200    FNEXIT
977 01130 4731    FJUMP, JMS I   FUNTAB
978 01131 5453    FUNTAB, FN
979 01132 5816    COS
980 01133 5620    TAN
981 01134 6220    ATN
982 01135 6114    LOG
983 01136 6200    EXP
984 01137 5412    SQR
985 01140 6425    ABS
986 01141 2726    SGN
987 01142 6434    INT
988 01143 5353    RND
989 01144 5624    SIN
990 01145 1761    PUTJ    /POINTER TO PUT CHAR ROUTINE,
991 01146 6441    SXERR  /FOR THE MISC. FUNCTIONS,
992 01147 6441    SXERR
993 01150 6441    SXERR
994
995 01151 1772    GETJ      /GET A CHAR FROM THE TTY.
996
997
998  IFNZRO MACHINE<
999
1000          ADC      /*NORMAL" A-D CONVERSION RETURN,
1001          TST      /*TEST CHARACTER BUFFER",
1002          TIM      /TIME (# OF CLOCK TICKS),
1003
1004
1005
1006
1007  IFZERO MACHINE<
1008 01152 6441    SXERR
1009 01153 7421    JST
1010 01154 6441    SXERR
1011
1012 01155 5547    TAB      /TAB FUNCTION IS IMPLEMENTED,
1013
1014 01156 6441    SXERR  /UNIMPLEMENTED USER FUNCTION,
1015
1016
1017
1018  IFNZRO MACHINE<
1019
1020  CLS      /GET STATUS OF LAST TICK,

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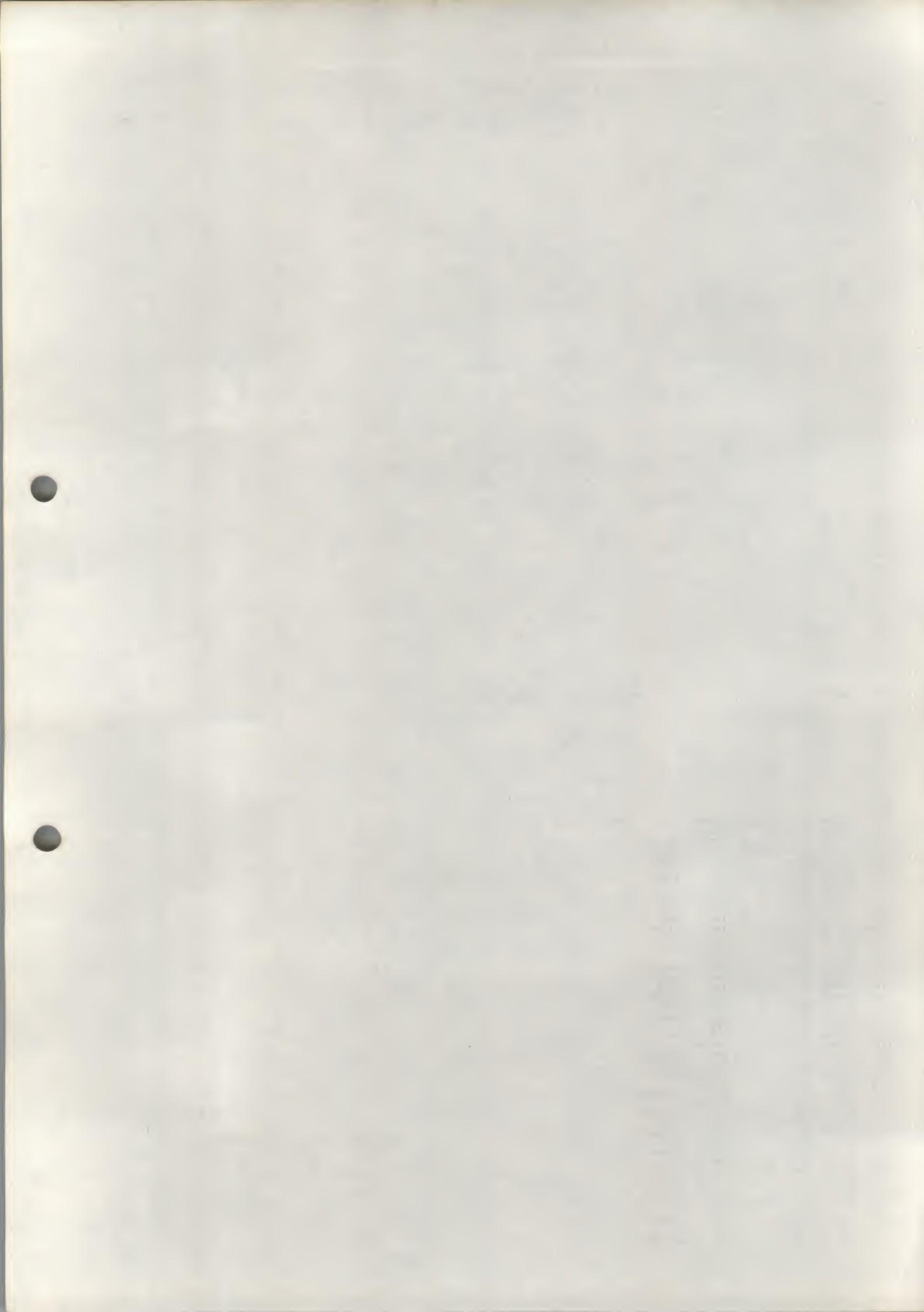
1021      CLC
1022      ADB
1023      /GET CLOCK COUNT BUFFER.
1024      /GET CONVERSION FROM BUFFER.
1025
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1029      IFZERO MACHINE<
1030  01157  6441  SYERR
1031  01160  6441  SYERR
1032  01161  6441  SYERR
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1039  01162  3754  03753,  3754
1040  01163  4214  04214,  4214
1041  01164  4213  04213,- 4213
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1060      1165      OBLOWE,
1061      1177      OBHIGH=FNEXT=1
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1074      1280      PAGE
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1087  01200  4570  FNEXIT, MUSTBE    /* */
1088  01201  3761  3761
1089  01202  4177  GOTOPR, JMS      GETWD
1090  01203  4505  OPDONE, JMS I    PPOP
1091  01204  3066  DCA          OLDOP
1092  01205  1450  TAD I        WORD
1093  01206  0272  AND          0700
1094  01207  7650  SNA CLA
1095  01210  5220  JMP          ITSOP
1096  01211  1453  TAD I        WORD
1097  01212  0275  AND          07077
1098  01213  1273  TAD          03755
1099  01214  7123  CLL
1100  01215  1366  TAD          023
1101  01216  7623  SNL CLA
1102  01217  5500  JMP I        PSXERR
1103  01220  1066  ITSTOP, TAD    OLLOOP
1104  01221  0272  AND          0700
1105  01222  3271  DCA          OTEMP
1106  01223  1450  TAD I        WORD
1107  01224  0272  AND          0702
1108  01225  7241  CIA
1109  01226  1271  TAD          OTEMP
1110  01227  7700  SMA CLA
1111  01230  5247  JMP          DOITNOW
1112  01231  1066  TAD          OLLOOP
1113  01232  4504  JMS I        PPUSH
1114  01233  4035  FENTER
1115  01234  2073  FST          OPERAND
1116  01235  0000  FNEXIT
1117  01236  1273  TAD          OPERAND
1118  01237  4504  JMS I        PPUSH
1119  01240  1274  TAD          OPERAND+1
1120  01241  4504  JMS I        PPUSH
1121  01242  1075  TAD          OPERAND+2
1122  01243  4504  JMS I        PPUSH
1123  01244  1450  TAD I        WORD
1124  01245  4504  JMS I        PPUSH
1125  01246  5511  JMP I        PGETOPR
1126  01247  1066  DOITNOW,TAD  OLLOOP
1127  01250  0273  AND          077
1128  01251  1274  TAD          07764A
1129  01252  7453  SNA
1130  01253  5363  JMP          UDOPER

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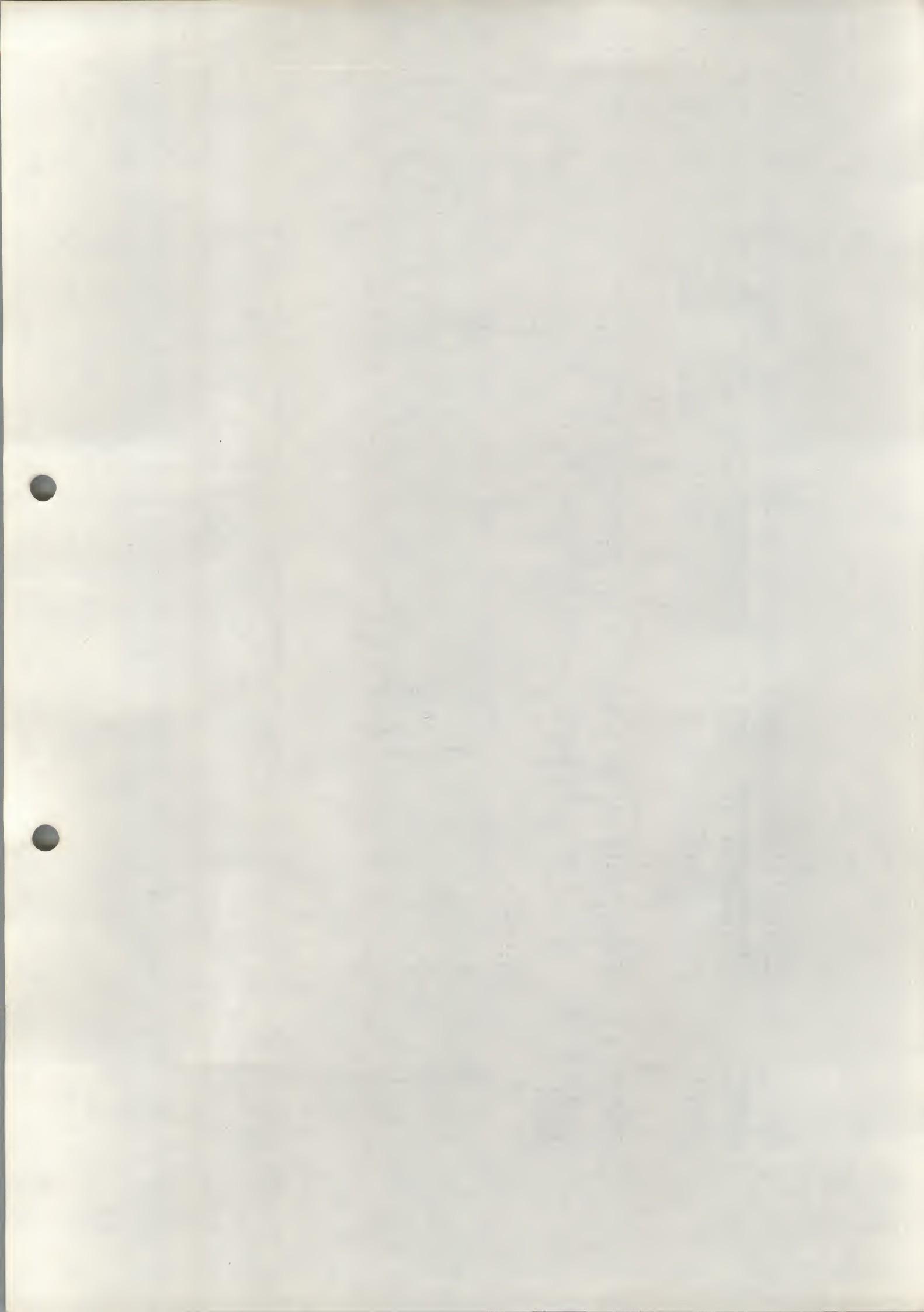
1131 01254 7201      TAC
1132 01255 7650      SNA CLA
1133 01256 5321      JMP  UMOPER
1134 01257 1766      TAD  OLLOOP
1135 01258 0073      AND  C77
1136 01261 1276      TAD  OJUMP
1137 01262 3271      DCA  OTEMP
1138 01263 4505      JMS I  PPOP
1139 01264 3275      DCA  OPERAND+2
1140 01265 4505      JMS I  PPOP
1141 01266 3274      DCA  OPERAND+1
1142 01267 4505      JMS I  PPOP
1143 01268 3273      DCA  OPERAND
1144 01269 7422      OTEMP, HLT
1145 01272 0720      0720, 722
1146 01273 3755      03755, 3755
1147 01274 7764      07764A, 7764
1148 01275 7077      07077, 7077
1149 01276 5677      OJUMP, JMP I .+1
1150 01277 1312      PLUS
1151 01278 1316      MINUS
1152 01279 1327      STAR
1153 01280 1332      SLASH
1154 01283 5748      UPARRY /OR "UPARROW" IF NO EXTENDED FNS
1155 01284 1342      RELATE
1156 01285 1342      RELATE
1157 01286 1342      RELATE
1158 01287 1342      RELATE
1159 01288 1342      RELATE
1160 01289 1342      RELATE
1161 01292 4435      PLUS, FENTER
1162 01293 4073      FAD  OPERAND
1163 01294 0000      FADEXT, FEXIT
1164 01295 5203      JMP  OPDONE
1165 01296 4435      MINUS, FENTER
1166 01297 5203      FSB  OPERAND
1167 01298 0000      FEXIT
1168 01299 1020      UMOPER, TAD  AC1
1169 01302 7600      SZA CLA
1170 01303 7330      CLA CLL CML RAR
1171 01304 1024      TAD  ACS
1172 01305 3224      DCA  ACS /DIRECT REF TO FLOATING AC
1173 01306 5203      JMP  OPDONE
1174 01307 4435      STAR, FENTER
1175 01308 6073      FMP  OPERAND
1176 01309 1615      FJMP+BKWD+,=FADEXT
1177 01310 4435      SLASH, FENTER
1178 01311 2204      FST+FWD+SLSHTMP=,
1179 01312 3273      FLD  OPERAND
1180 01313 7202      FDV+FWD+SLSHTMP=,
1181 01314 1622      FJMP+BKWD+,=FADEXT
1182 01315 2000      SLSHTMP,01010
1183 01316 0022
1184 01317 0020
1185 01318 1066      RELATE, TAD  OLLOOP

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1186 01343 1367      TAD  CONST
1187 01344 3353      DCA  THESKIP
1188 01345 6201      CDF  3   /***** 8 K INSERT.
1189 01346 1753      TAD I THESKIP
1190 01347 6211      CDF  10  /***** 8 K INSERT.
1191 01350 3353      DCA  THESKIP
1192 01351 4435      FENTER
1193 01352 5073      FSB  OPERAND
1194 01353 7402      THESKIP,HLT
1195 01354 1204      FJMP+FWD+4
1196 01355 3151      FLD  ONE
1197 01356 0000      FEXIT
1198 01357 5203      JMP  OPDONE
1199 01360 3152      FLD  ZERO
1200 01361 0000      FEXIT
1201 01362 5203      JMP  OPDONE
1202 01363 4505      UDOPER, JMS I PPOP
1203 01364 3266      DCA  OLLOOP
1204 01365 5466      JMP I  OLLOOP
1205 01366 0023      023, 23
1206 01367 5263      CONST, .-4104
1207 01370 0050      FSQD
1208 01371 0140      FSCT  / <
1209 01372 0110      FS LT / >
1210 01373 0100      FS GE / <=
1211 01374 0150      FS LE / >=
1212 01375 2240      FSNE / >=
1213
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1220 1400      PAGE
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1222
1223 01400 0000      GETADDR,0
1224 01401 6201      CDF  0   /***** 8 K INSERT.
1225 01402 1600      TAD I GETADDR
1226 01403 3014      DCA  INDEX2
1227 01404 2200      ISZ  GETADDR
1228 01405 1602      TAD I GETADDR
1229 01406 3162      DCA  GSSI
1230 01407 2200      ISZ  GETADDR
1231 01408 1600      TAD I GETADDR

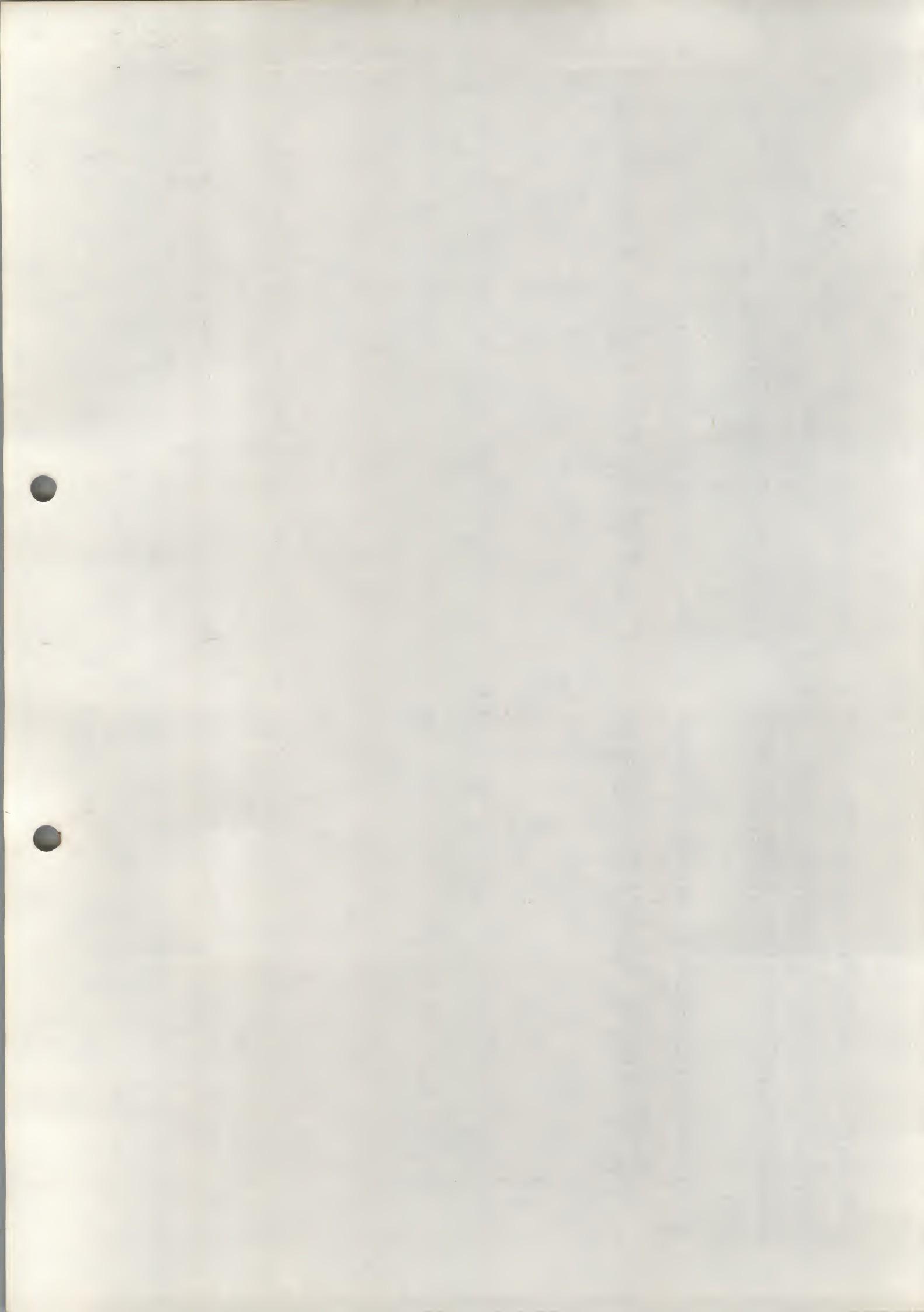
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1232 01411 3363 DCA GSS2
 1233 01412 2200 ISZ GETADDR
 1234 01413 6211 CDF 10
 1235 01414 1414 TAD I INDEX2
 1236 01415 3067 DCA ADDRESS
 1237 01416 2267 ISZ ADDRESS
 1238 01417 1362 TAD GSS1
 1239 01420 7650 SNA CLA
 1240 01421 5260 JMP NOSS1
 1241 01422 1414 TAD I INDEX2
 1242 01423 7450 SNA
 1243 01424 5261 JMP ALLOC
 1244 01425 7140 CLL CIA
 1245 01426 1362 TAD GSS1
 1246 01427 7630 SZL CLA
 1247 01430 5378 JMP SSERR
 1248 01431 1414 TAD I INDEX2
 1249 01432 3364 DCA GDIM2
 1250 01433 1363 TAD GSS2
 1251 01434 7450 SNA
 1252 01435 5253 JMP NOSS2
 1253 01436 7141 CLL CIA
 1254 01437 1364 TAD GDIM2
 1255 01440 7620 SNL CLA
 1256 01441 5378 JMP SSERR
 1257 01442 1362 TAD GSS1
 1258 01443 7041 CIA
 1259 01444 3362 DCA GSS1
 1260 01445 7410 SKP
 1261 01446 1364 TAD GDIM2
 1262 01447 2362 ISZ GSS1
 1263 01450 5246 JMP .=2
 1264 01451 1363 TAD GSS2
 1265 01452 3362 DCA GSS1
 1266 01453 1362 NOSS2, TAD GSS1
 1267 01454 7104 CLL RAL
 1268 01455 1362 TAD GSS1
 1269 01456 1067 TAD ADDRESS
 1270 01457 3067 DCA ADDRESS
 1271 01460 5680 NOSS1, JMP I GETADDR
 1272 01461 2234 ALLOC, ISZ DIMFLAG
 1273 01462 7410 SKP
 1274 01463 5273 JMP ISDIM
 1275 01464 3034 DCA DIMFLAG
 1276 01465 1363 TAD GSS2
 1277 01466 7640 SZA CLA
 1278 01467 1367 TAD O13
 1279 01470 3363 DCA GSS2
 1280 01471 1367 TAD O13
 1281 01472 3362 DCA GSS1
 1282 01473 1363 ISDIM, TAD GSS2
 1283 01474 7450 SNA
 1284 01475 7201 CLA IAC
 1285 01476 7041 CIA
 1286 01477 3364 DCA GDIM2

1287 01500 2134 ISZ NPOINT /FORBID INTERRUPTS NOW.
 1288 01501 7321 CLA CLL IAC
 1289 01502 1362 TAD GSS1
 1290 01503 7430 SZL
 1291 01504 5765 JMP I PSPACERR
 1292 01505 2364 ISZ GDIM2
 1293 01506 5302 JMP .=4
 1294 01507 3364 DCA GDIM2
 1295 01510 1364 TAD GDIM2
 1296 01511 7124 CLL CML RAL
 1297 01512 7420 SNL
 1298 01513 1364 TAD GDIM2
 1299 01514 3364 DCA GDIM2
 1300 01515 1364 TAD GDIM2
 1301 01516 7430 SZL
 1302 01517 5765 JMP I PSPACERR
 1303 01520 4544 JMS I SPLEFT
 1304 01521 7410 SKP
 1305 01522 5765 JMP I PSPACERR
 1306 01523 7344 CLA CLL CIA RAL
 1307 01524 1014 TAD INDEX2
 1308 01525 3214 DCA INDEX2
 1309 01526 1023 TAD ARRLOC
 1310 01527 3414 DCA I INDEX2
 1311 01530 1362 TAD GSS1
 1312 01531 3414 DCA I INDEX2
 1313 01532 1363 TAD GSS2
 1314 01533 3414 DCA I INDEX2
 1315 01534 7240 CLA CIA
 1316 01535 1067 TAD ADDRESS
 1317 01536 3067 DCA ADDRESS
 1318 01537 1366 TAD 07774
 1319 01540 3363 DCA GSS2
 1320 01541 1467 TAD I ADDRESS
 1321 01542 2067 ISZ ADDRESS
 1322 01543 4521 JMS I PSTICKI
 1323 01544 2363 ISZ GSS2
 1324 01545 5341 JMP .=4
 1325 01546 1364 TAD GDIM2
 1326 01547 7041 CIA
 1327 01550 1160 TAD O4
 1328 01551 3364 DCA GDIM2
 1329 01552 4521 JMS I PSTICKI
 1330 01553 2364 ISZ GDIM2
 1331 01554 5352 JMP .=2
 1332 01555 7346 CLA CLL CIA RTL
 1333 01556 1220 TAD GETADDR
 1334 01557 3200 DCA GETADDR
 1335 01560 4543 JMS I CNCLR
 1336 01561 5201 JMP GETADDR+1
 1337 01562 0000 GSS1, 0
 1338 01563 0000 GSS2, 0
 1339 01564 0000 GDIM2, 0
 1340 01565 0370 PSPACER,SPACERR
 1341 01566 7774 07774, 7774

/CHECK FOR CONTROL C.



```

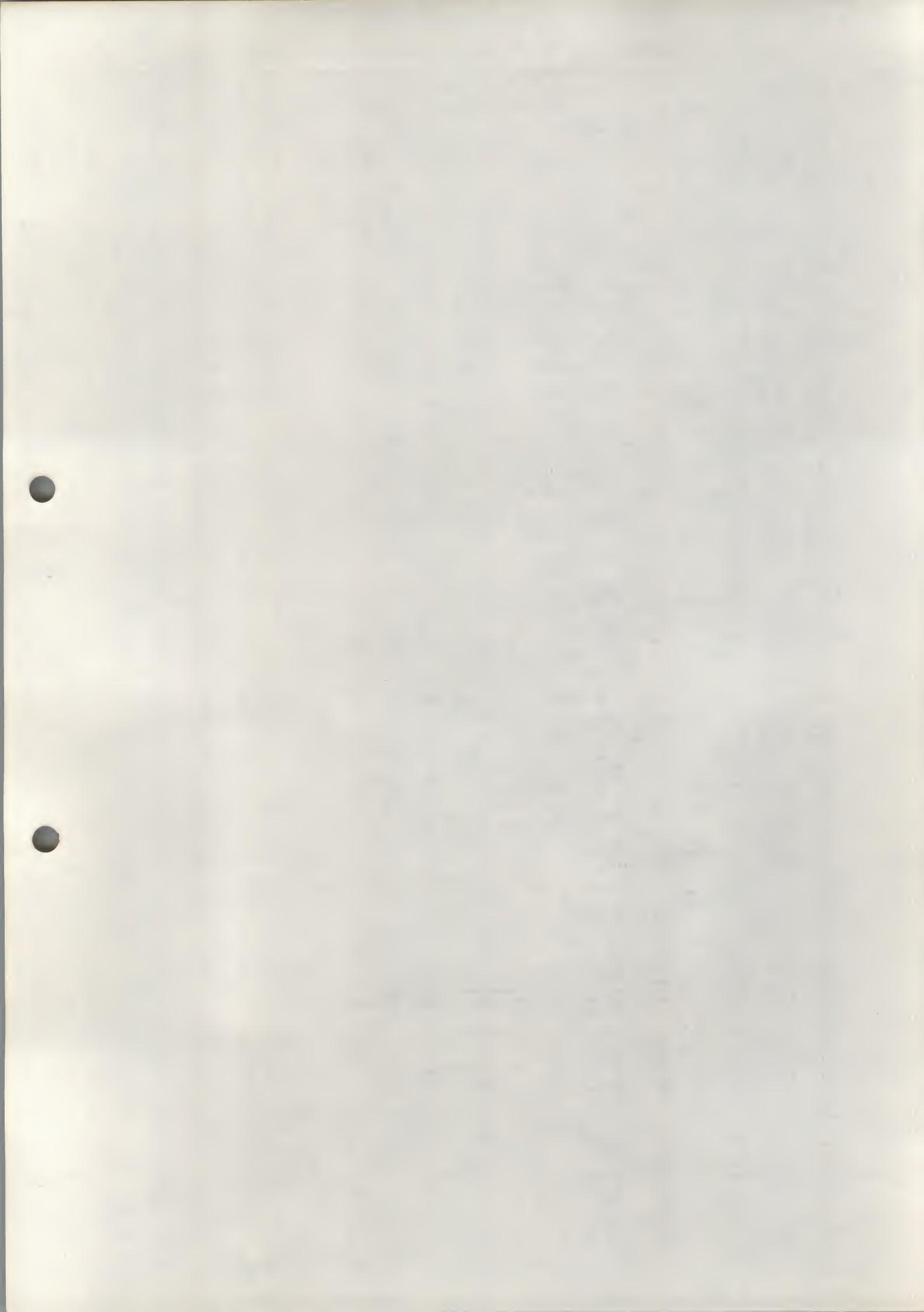
1342 01567 2813 013, 13      /(12) IF 1 ORG INDEXING
1343 21572 4077 85ERR, JMS I PEROR
1344 21571 2325 TEXT "SUBSCRIPT"
1345 21572 0223
1346 01573 0322
1347 21574 1120
1348 01575 2400
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1354 21574 1752 DEF, TAD LINENO
1355 21577 3013 DCA INDEX1
1356 01600 1413 TAD I INDEX1
1357 21581 7230 DCA USERFN
1358 21582 4571 GET+MUSTBE /*FN*
1359 21583 3754 3754
1360 21584 4571 GET+MUSTBE /*A VARIABLE
1361 21585 7222 7222
1362 21586 4571 GET+MUSTBE /*C*
1363 21587 3755 3755
1364 21610 4571 GET+MUSTBE /*A VARIABLE
1365 21611 7000 7000
1366 21612 4571 GET+MUSTBE /*D*
1367 21613 3761 3761
1368 21614 4571 GET+MUSTBE /*E*
1369 21615 3673 3673
1370 21616 5517 JMP I PSKIPIT
1371 21617 2487 PSKIPIT,SKIPIT
1372 21620 2000 USERFN, 0
1373 21621 4570 MORERD, MUSTBE /*F*
1374 21622 3763 3763
1375 21623 4513 READ, JMS I RGETVAR
1376 21624 7240 CLA CMA
1377 21625 1045 TAD LOCTR
1378 21626 3273 DCA LOCTHP
1379 21627 1046 TAD READLOC
1380 21630 3045 DCA LOCTR
1381 21631 4567 GET+ISIT /*(CR) OR "\"
1382 21632 2000 2000
1383 21633 7410 SKP
1384 21634 5260 JMP SEARCH
1385 21635 4566 ISIT /*A LINENO
1386 21636 0320 0030
1387 21637 7410 SKP
1388 21640 5262 JMP SEARCH
1389 21641 4566 ISIT /*F*
1390 21642 3763 3763
1391 21643 5267 JMP DATAERR
1392 21644 4501 ISSOME, JMS I PEVAL
1393 21645 7240 CLA CMA
1394 21646 1045 TAD LOCTR
1395 21647 3246 DCA READLOC
1396 21650 1273 TAD LOCTHP

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1397 01651 3245 DCA LOCTR
1398 01652 4512 JMS I PSTOVAR
1399 01653 4567 GET+ISIT /*(CR) OR "\"
1400 01654 2220 2000
1401 01655 5221 JMP MORERD
1402 01656 5523 JMS I PEXECUTE
1403 01657 4177 SCHMOR, JMS GETHO
1404 01660 4566 SEARCH, ISIT /*DATA*
1405 01661 1757 1757
1406 01662 7410 SKP
1407 01663 5244 JMP ISSOME
1408 01664 4566 ISIT /*EOF)
1409 01665 1755 1755
1410 01666 5257 JMP SCHMOR
1411 01667 4477 DATAERR, JMS I PEROR
1412 01670 2401 TEXT "DATA"
1413 01671 2421
1414 01672 2220
1415 01673 3220 LOCTHP, 0
1416 01674 2220 GETBLK, 0
1417 01675 4563 JMS I PCMKFIT
1418 01676 1024 TAD CODELOC
1419 01677 3245 DCA LOCTR
1420 01700 1024 TAD CODELOC
1421 01721 1356 TAD ABCDEF
1422 01722 3224 DCA CODELOC
1423 01703 1024 TAD CODELOC
1424 01704 3357 DCA BCDEFG
1425 01705 1025 TAD PSYMTAB
1426 01726 1356 TAD ABCDEF
1427 01707 3225 DCA PSYMTAB
1428
1429 01710 1445 GTBKLP, TAD I LOCTR
1430 21711 2045 ISZ LOCTR
1431 21712 3757 DCA I BCDEFG
1432 01713 2357 ISZ BCDEFG
1433 01714 1357 TAD BCDEFG
1434 01715 7041 CIA
1435 21716 1005 TAD PSYMTAB
1436 01717 7640 SZA CLA
1437 21720 5310 JMP GTBKLP
1438
1439 01721 7240 CLA CMA
1440 21722 1226 TAD NSYMTAB
1441 01723 3206 DCA NSYMTAB
1442 21724 1165 TAD GS8PTR
1443 01725 7042 CMA
1444 21726 1164 TAD PGOLIST
1445 21727 3357 DCA BCDEFG
1446 21732 1164 TAD PGOLIST
1447 01731 3250 DCA WORD
1448 01732 1356 TAD ABCDEF
1449 01733 1452 TAD I WORD
1450 01734 3450 DCA I WORD
1451 21735 2050 ISZ WORD

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1452 01736 2357      ISZ    BCDEFG
1453 01737 5332      JMP    ,P5
1454 01740 1663      TAD    FORET
1455 01741 3357      DCA    BCDEFG
1456 01742 1360      TAD    PPFCRLIS
1457 01743 3252      DCA    WORD
1458 01744 5352      JMP    ,P6
1459 01745 1356      TAD    ABCDEF
1460 01746 1450      TAD I   WORD
1461 01747 3450      DCA I   WORD
1462 01750 2350      ISZ    WORD
1463 01751 2350      ISZ    WORD
1464 01752 2351      ISZ    BCDEFG
1465 01753 5345      JMP    ,P6
1466 01754 1005      TAD    PSYMTAB
1467 01755 5674      JMP I   GETBLK
1468 01756 7774      ABCDEF, =4
1469 01757 0222     ECOEFG, 0
1470 01760 7776      PPFCRLIS, FORLIST+1
1471 01761 2070     PUTJ, 0
1472 01762 4506     JMS I   PFIX
1473 01763 7212     CLA
1474 01764 1816     TAD    AC3
1475 01765 4433     JMS I   PPUTCH
1476 01766 4506     JMS I   PANORM
1477 01767 5761     JMP I   PUTJ
1478
1479
1480 01770 0028     GETJ, 0
1481 01771 4776     JMS I   PBEGFIX
1482 01772 4432     JMS I   PGETCH
1483 01773 3216     DCA    AC3
1484 01774 3546     JMS I   PANORM
1485 01775 5770     JMP I   GETJ
1486
1487 01776 3762     PBEGFIX,BEGFIX
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1499 2830     PAGE
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1502 02000 2134 NOTNOW, ISZ  NOINT
1503 02001 2050      ISZ  WORD
1504 02002 1450      TAD I WORD
1505 02003 7450      SNA
1506 02004 5232      JMP  INSERT

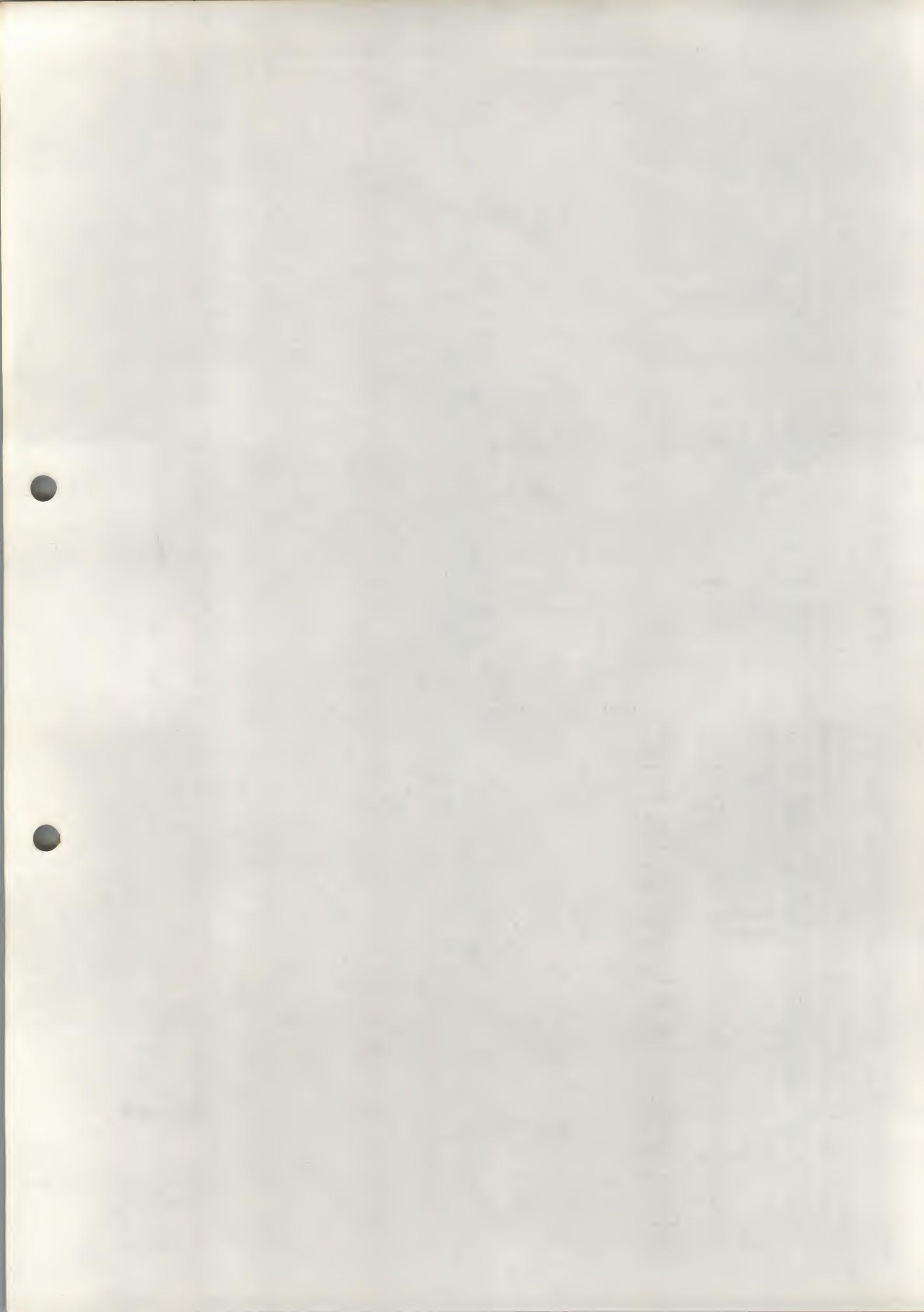
```

/GETS A CHARACTER FROM THE TTY,
 /CLEAN UP THE FAC
 /FECTH A CHAR.
 /SAVE IT.
 /AND NORMALIZE AC.
 /AND RETURN NOW.

```

1507 02005 3371      DCA    LOWLOC
1508 02006 3450      DCA I   WORD
1509 02007 1371      TAD    LOWLOC
1510 02010 3045      DCA    LOCCTR
1511 02011 4510      JMS I   PPASSCR
1512 02012 1371     MOVE, TAD    LOWLOC
1513 02013 7041     CIA
1514 02014 1004     TAD    CODELOC
1515 02015 7650     SNA CLA
1516 02016 5230     JMP  INSRT5
1517 02017 7340     CLA CLL CMA
1518 02020 1371     TAD    LOWLOC
1519 02021 3371     DCA    LOWLOC
1520 02022 7340     CLA CLL CMA
1521 02023 1045     TAD    LOCCTR
1522 02024 3045     DCA    LOCCTR
1523 02025 1771     TAD I  LOWLOC
1524 02026 3445     DCA I  LOCCTR
1525 02027 5212     JMP  MOVE
1526 02030 1045     INSRT5, TAD    LOCCTR
1527 02031 3024     DCA    CODELOC
1528 02032 1057     INSERT, TAD    FPTR
1529 02033 1040     TAD    MLINBUF
1530 02034 7040     CMA
1531 02035 3257     DCA    FPTR
1532 02036 7326     CLA CLL CML RTL
1533 02037 1057     TAD    FPTR
1534 02040 7450     SNA
1535 02041 5313     JMP  FIXLIN
1536 02042 7040     CMA
1537 02043 4563     JMS I   PCMKFIT
1538 02044 1004     TAD    CODELOC
1539 02045 3245     DCA    LOCCTR
1540 02046 1437     TAD I  PLINBUF
1541 02047 7081     IAC
1542 02050 3013     DCA    INDEX1
1543 02051 1413     TAD I  INDEX1
1544 02052 3073     DCA    OPERAND
1545 02053 1413     TAD I  INDEX1
1546 02054 3074     DCA    OPERAND+1
1547 02055 4336     JMS    COMPARE
1548 02056 5261     JMP  NOTFRST
1549 02057 4361     JMS    SUBRA
1550 02060 5303     JMP  TRANSF
1551 02061 4510     NOTFRST,JMS I  PPASSCR
1552 02062 4336     JMS    COMPAR
1553 02063 5261     JMP  NOTFRST
1554 02064 1045     TAD    LOCCTR
1555 02065 3360     DCA    LSTLOC
1556 02066 1004     TAD    CODELOC
1557 02067 3045     DCA    LOCCTR
1558 02070 4361     JMS    SUBRA
1559 02071 4177     JMS    GETWD
1560 02072 1050     MOVLUP, TAD    WORD
1561 02073 3772     DCA I   PUTLOC

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/BASIC.L8E

PAL8-V9 / / PAGE 4-6

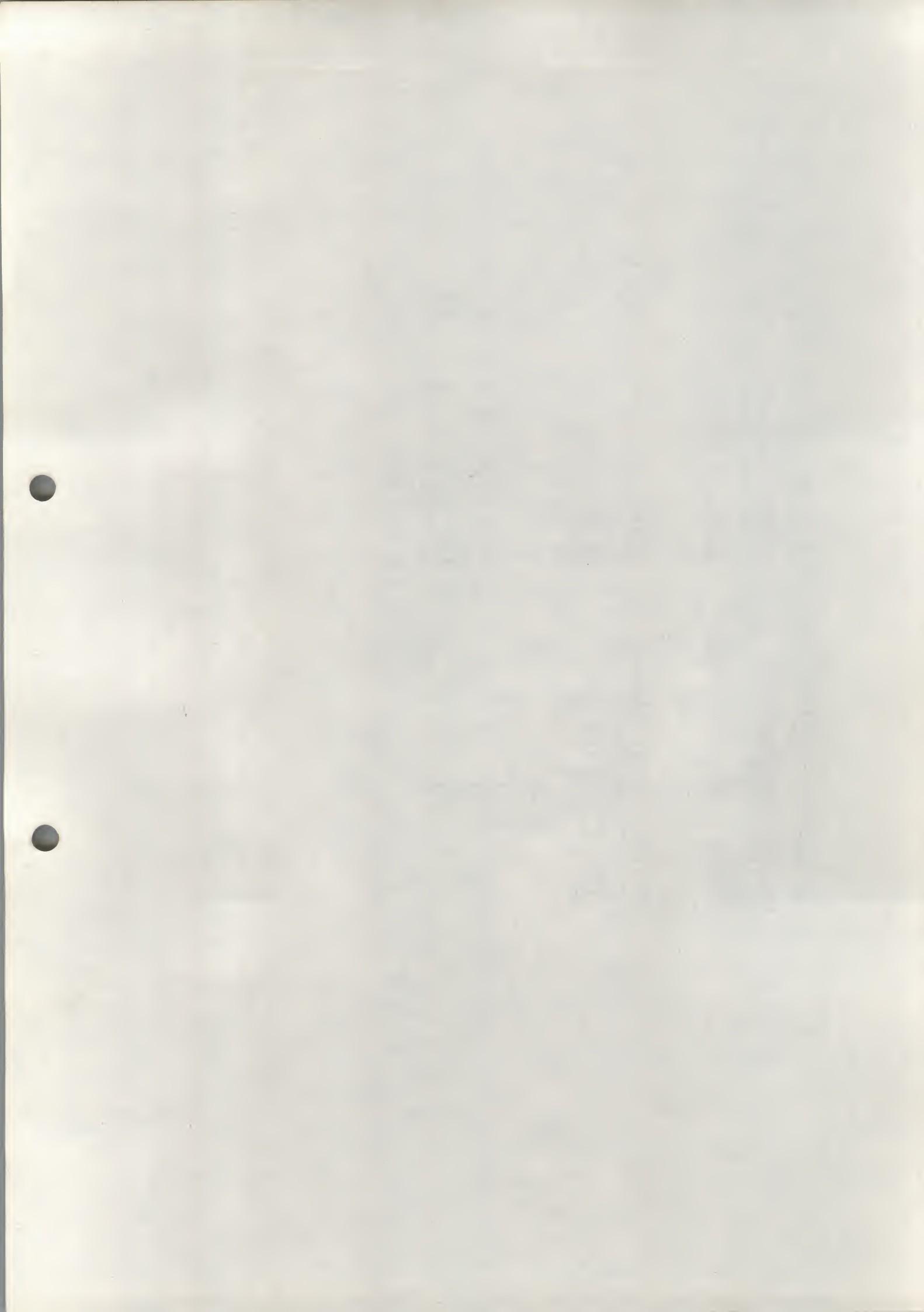
1562 02074 2372 ISZ PUTLOC
1563 22075 4177 JMS GETWD
1564 02076 1360 TAD LSTLOC
1565 02077 7041 CIA
1566 02108 1345 TAD LOCSTR
1567 02101 7640 SZA CLA
1568 02102 5272 JMP MOVLUP
1569 02103 1257 TRANSF, TAD PLINBUF
1570 02104 3260 DCA DFTR
1571 02105 1460 TRALUP, TAG I GPTA
1572 02106 2760 ISZ GPTR
1573 02107 3772 DCA I PUTLOC
1574 02110 2372 ISZ PUTLOC
1575 02111 2257 ISZ FPTA
1576 02112 5325 JMP TRALUP
1577 02113 4561 FIXLIN, JMS I PLINFIX
1578 02114 5520 JMP I PEDIT
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1583 02115 2280 IGNORE, 0

/THIS ROUTINE LOOKS FOR A "\n" OR A C.R.

/BASIC.L8E

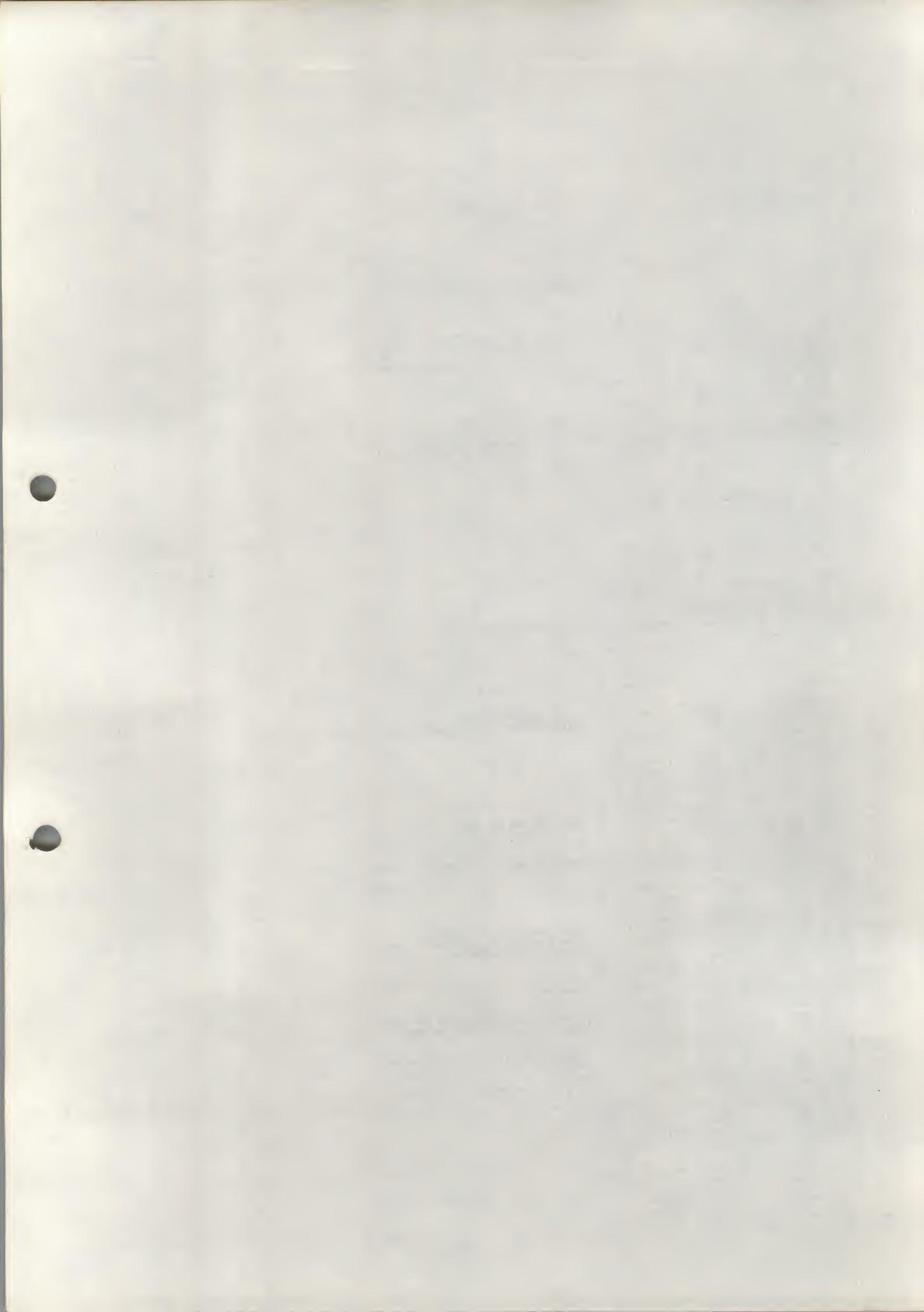
PAL8-V9 / / PAGE 5

1584 02116 4567 GET+ISIT
1585 02117 5820 5820 /TEXT?
1586 02120 5327 JMP NOTBAD /NOPE.
1587 02121 4177 JMS GETWD
1588 02122 1252 TAD WORD
1589 02123 2370 AND 077
1590 02124 7640 SZA CLA /END OF TEXT?
1591 02125 5321 JMP ,=4 /NOPE.
1592 02126 5316 JMP IGNORE+1 /YEP, GET NEXT ITEM.
1593
1594 02127 4575 NOTBAD, JMS I PISITLIT /IS IT A LITERAL?
1595 02130 7410 SKP
1596 02131 5316 JMP IGNORE+1 /YES.
1597 02132 4566 ISIT
1598 02133 2200 2020
1599 02134 5316 JMP IGNORE+1 /\n\ OR C.R.
1600 02135 5715 JMP I IGNORE / NO
1601
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1608 02136 0200 COMPARE,0
1609 02137 4567 GET+ISIT /A LINENO
1610 02140 0000 0000
1611 02141 5356 JMP IAMLESS
1612 02142 1350 TAD WORD
1613 02143 7021 IAC
1614 02144 3213 DCA INDEX1
1615 02145 1413 TAD I INDEX1
1616 02146 7141 CLL CIA
1617 02147 1873 TAD OPERAND
1618 02150 7640 SZA CLA
1619 02151 5355 JMP FRSTNE
1620 02152 1413 TAD I INDEX1
1621 02153 7141 CLL CIA
1622 02154 1874 TAD OPERAND+1
1623 02155 7620 FRSTNE, SNL CLA /IS OPERAND<THIS LINENO
1624 02156 2336 IAMLESS,ISZ COMPARE /YES
1625 02157 5736 JMP I COMPARE
1626 02160 2222 LSTLOC, 0
1627 02161 0000 SUBRA, 0
1628 02162 1257 TAD FPTA
1629 02163 7120 CLL
1630 02164 1084 TAD CODELOC
1631 02165 3204 DCA CODELOC
1632 02166 1084 TAD CODELOC
1633 02167 3372 DCA PUTLOC
1634 02170 5761 JMP I SUBRA
1635 02171 0000 LOHLOC, 0
1636 02172 0000 PUTLOC, 0
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1646  02173  4177  PRINT, JMS   GETWD
1647  02174  7346  CLA CLL CVA RTL
1648  02175  1131  TAD OUTDEV
1649  02176  1131  TAD OUTDEV
1650  02177  1131  TAD OUTDEV
1651  02178  1361  TAD OUTDEV
1652  02201  3557  DCA TABDTH
1653
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1655  02202  4566  ISIT
1656  02203  3763  3763
1657  02204  5227  JMP PRINTC
1658  02205  5277  JMP PRINBLK
1659
1660
1661  02206  0177  "PRINTC, JMS   GETWD
1662
1663  02207  3345  PRINTC, DCA   TABFLG
1664  02210  4566  ISIT
1665  02211  2200  2200
1666  02212  5216  JMP NOPCR
1667
1668  02213  4514  JMS I PPRINTXT
1669  02214  6531  CRLF
1670  02215  5523  JMP I PEXECUTE
1671
1672  02216  4566  NOPCR, ISIT
1673  02217  3763  3763
1674  02220  5316  JMP PRENT
1675  02221  5303  JMP PRINCOM
1676
1677  02222  4566  PRINTMS,ISIT
1678  02223  5000  5000
1679  02224  5236  JMP NOTTXT
1680  02225  4177  PRINQUO,JMS   GETWD
1681  02226  1250  TAD WORD
1682  02227  7212  RTR
1683  02233  7212  RTR
1684  02231  7212  RTR
1685  02232  4260  JMS PRINHAF
1686  02233  1050  TAD WORD
1687  02234  4260  JMS PRINHAF
1688  02235  5225  JMP PRINQUO
1689  02236  1241  NOTTXT, TAD PPRINRET
1690  02237  5642  JMP I PEVALGO
1691  02240  1207  PEVALGO,EVALGO
1692  02241  2242  PPRINRE,PRINRET
1693  02242  1345  PRINRET,TAD TABFLG
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1749 02330 0300 LINFIX, 0
1750 02331 1704 TAD. CODELOC
1751 02332 3005 DCA LOCCTR
1752 02333 4177 LFXLUP, JMS GETAD
1753 02334 1450 TAD I WORD
1754 02335 7640 SZA CLA /IS IT A LINENO
1755 02336 5700 JMP I LINFIX AND
1756 02337 0300 ISZ WORD
1757 02338 7200 CLA CMA
1758 02341 1045 TAD LOCCTR
1759 02342 7000 DCA I AND
1760 02343 0110 JMS I PPRINTR
1761 02344 5803 JMP I LFXLUP
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1764 02345 0202 TABFLG, 0
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1768 02348 0300 CHECKW, 0
1769 02347 1125 TAD COLUMN
1770 02350 7000 CHA
1771 02351 1357 TAD TWIOTH
1772 02352 7700 SMA CLA
1773 02353 5706 JMP I CHECKW
1774 02354 0514 JMS I PPRINTXT
1775 02355 6531 CRLF
1776 02356 5746 JMP I CHECKW
1777
1778 02357 0200 TWIOTH, 0
1779 02360 0014 014, 14
1780 02361 2110 0110, 110
1781
1782 02362 6350 TABTHR, TABDO
1783
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1787 02363 0073 MENOPOL,-ENDPOL=1
1788
1789 02364 0200 PUSH, 0
1790 02365 3430 DCA I POL
1791 02366 2336 ISZ PDL
1792 02367 1036 TAD PDL
1793 02370 1363 TAD MENOPOL
1794 02371 7640 SZA CLA
1795 02372 5764 JMP I PUSH
1796 02373 4077 JMS I PERROR
1797 02374 0530 TEXT "EXPRESSION"
1798 02375 2022
1799 02376 2523
1800 02377 2311
1801 02400 1710
1802 02401 0000
1803

```

/TAB FOUND FLAG.

/THIS ROUTINE CHECKS FOR LINE TOO LONG.

/GET WHERE AT NOW,

/-WHEREAT-#OF PLACES IN OUT CHAR.

/ADD IN WIDTH OF DEVICE.

/TOO BIG,

/NAH, RETURN TO SENDER.

/YEP,GIVE C.R.L.F.

/AND RETURN TO SENDER.

/0 IS OK SINCE IT'LL BE SET UP CORRECTLY.

/MAGIC CONSTANT,

/WDTH OF TTY PAPER.

/ROUTINE WHICH PROCESS TAB CHARACTER.

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1816 02402 4541 EXIT, JMS I PCOUNT
1817 02403 1027 TAD 0215
1818 02404 4433 JMS I PPUTCH
1819 02405 1012 EDIT, TAD 0212
1820 02406 4433 JMS I PPUTCH
1821 02407 1130 TAD OUTD2
1822 02410 3131 DCA OUTDEV
1823 02411 4543 JMS I CNCLR
1824 02412 1362 TAD PXXTHEN
1825 02413 4524 JMS I PGETLIN
1826 02414 1437 TAD I PLINBUF
1827 02415 3050 DCA WORD
1828 02416 1450 TAD I WORD
1829 02417 7652 SNA CLA
1830 02420 5766 JMP I PNTHONW
1831 02421 1010 TAD 0212
1832 02422 4433 JMS I PPUTCH
1833 02423 1132 TAD OUTD2
1834 02424 3131 DCA OUTDEV
1835 02425 4566 ISIT /RESET I/O DEVICE.
1836 02426 3736 3736
1837 02427 7410 SKP
1838 02430 5252 JMP RUN
1839 02431 4566 ISIT /*LIS*
1840 02432 3737 3737
1841 02433 7410 SKP
1842 02434 5763 JMP I PLIST
1843 02435 4566 ISIT /*SCR*
1844 02436 3735 3735
1845 02437 5254 JNP IMMED
1846 02440 1365 SCRATCH,TAD PPERNSYM
1847 02441 3024 DCA CODELOC
1848 02442 1364 TAD PYXESCP
1849 02443 3765 DCA I PPERNSYM
1850 02444 1365 TAD PPERNSYM
1851 02445 7201 IAC
1852 02446 3225 DCA PSYNTAB
1853 02447 7240 CLA-CMA
1854 02450 3026 DCA NSVMTAB
1855 02451 4537 JMS I PRESET
1856 02452 4262 RUN, JMS CLEARV
1857 02453 5503 JMP I PEXECUTE
1858 02454 1037 IMMED, TAD PLINBUF

```

/WAIT FOR BUFFER TO EMPTY AND THEN CONTINUE.

/RESET DEVICE

/CHECK TO SEE IF "C WAS TYPED.

/RUN

/RESET I/O DEVICE.

/RUN

/*SCR*

/IMMED

/CODELOC

/PYXESCP

/PPERNSYM

/NSVMTAB

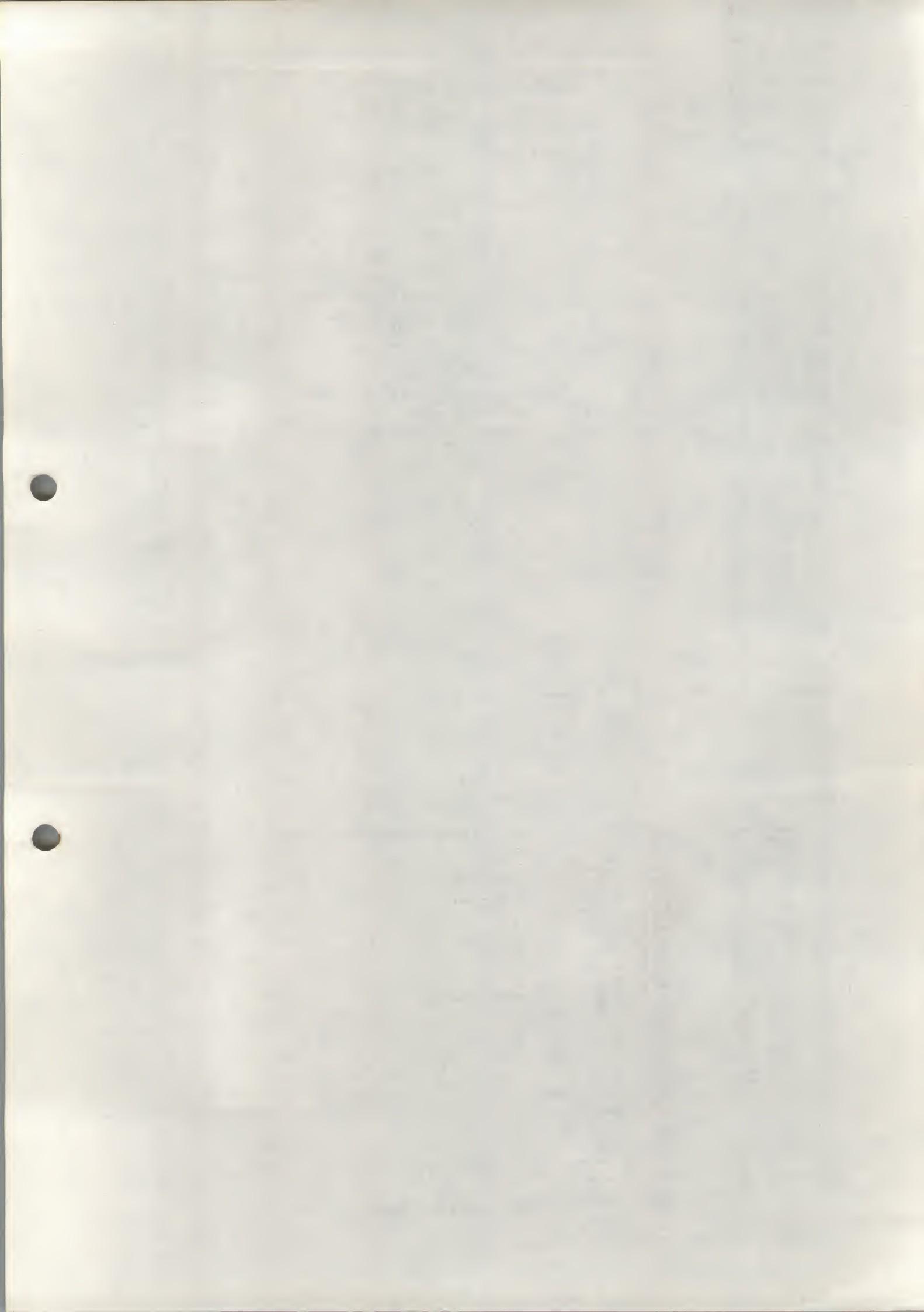
/PRESET

/CLEARV

/PEXECUTE

/PLINBUF

/RESET DEVICES AFTER SCRATCH.



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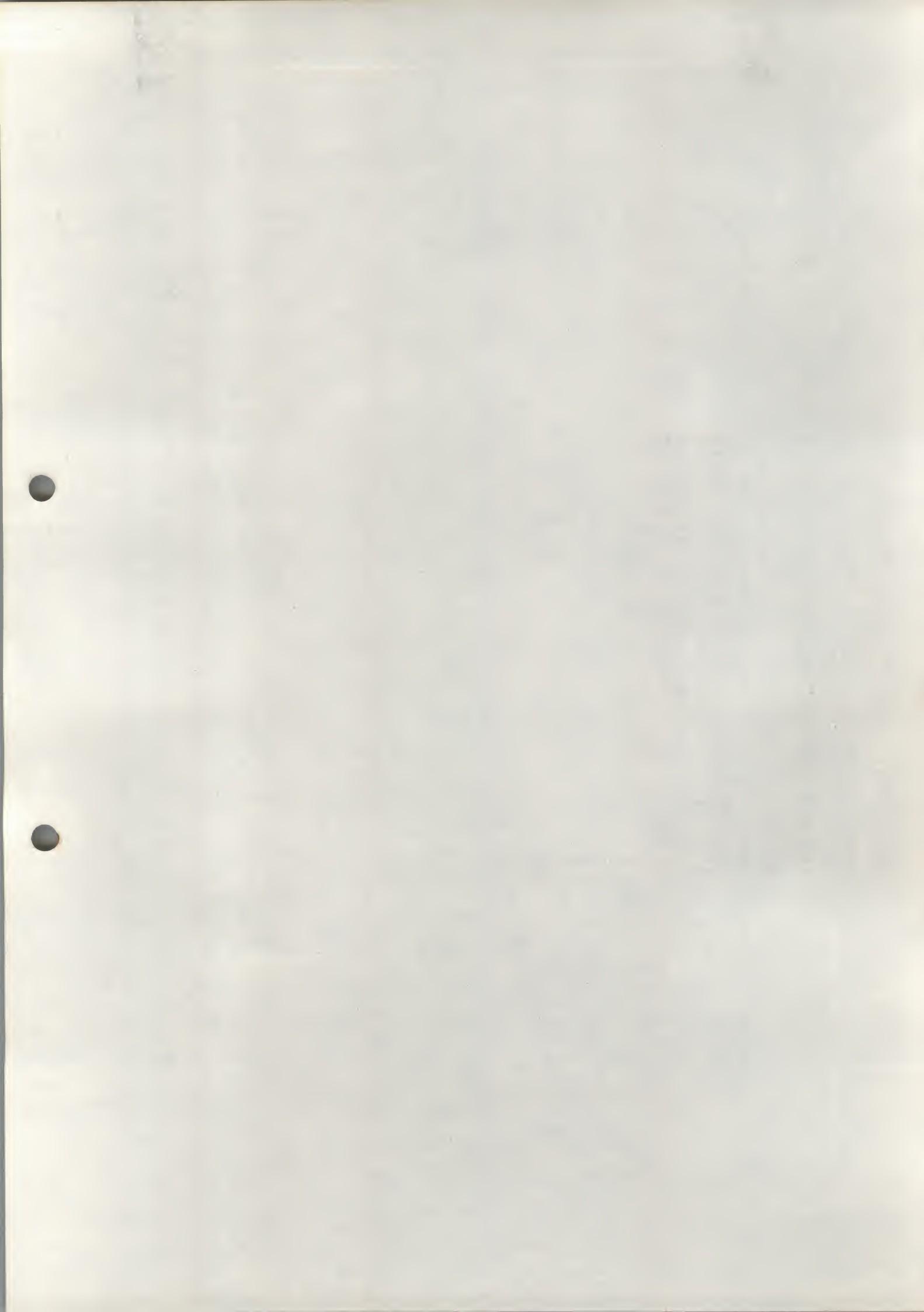
1859 02455 3045      DCA    LOCCTR
1860 02456 1364      TAD    PAXEOF
1861 02457 3252      DCA    LINENO
1862 02460 5503      JHP I  PEXECUTE
1863
1864 02461 7602      PJSET, SETUP
1865
1866 02462 0200      CLEARV, 2
1867 02463 6661      JMS I  PJSET
1868 02464 5323      JHP I  RUNIN
1869 02465 1855      RUNLUP, TAD I EPTR
1870 02466 1362      TAD I  07000A
1871 02467 7601      STA CLA /IS IT A VARIABLE
1872 02470 5277      JHP RUNNOT /NO
1873 02471 2056      ISZ EPTR
1874 02472 1456      TAD I  EPTR
1875 02473 3060      DCA GPTR

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1876 02474 1460      TAD I  GPTR
1877 02475 3456      DCA I  EPTR
1878 02476 7410      SKP
1879 02477 2056      RUNNOT, ISZ EPTR
1880 02500 2256      ISZ EPTR
1881 02501 2356      ISZ EPTR
1882 02502 2256      ISZ EPTR
1883 02503 2057      RUNIN, ISZ FPTR
1884 02504 5265      JMP RUNLUP
1885 02505 1361      TAD PLIMIT
1886 02506 3203      DCA ARRLOC
1887 02507 1225      TAD PSYMTAB
1888 02510 3256      DCA EPTR
1889 02511 1026      TAD NSYMTAB
1890 02512 3257      DCA FPTR
1891 02513 5343      JMP RUNZIN
1892 02514 1456      RUN2LUP, TAD I EPTR
1893 02515 1560      TAD 07000A
1894 02516 7640      SZA CLA /IS IT A VARIABLE
1895 02517 5337      JHP RUN2NOT /NO
1896 02520 2056      ISZ EPTR
1897 02521 1456      TAD I  EPTR
1898 02522 3031      DCA TMP
1899 02523 1203      TAD ARRLOC
1900 02524 3456      DCA I  EPTR
1901 02525 1031      TAD TMP
1902 02526 4521      JMS I  PSTICKI
1903 02527 4521      JMS I  PSTICKI
1904 02530 4521      JMS I  PSTICKI
1905 02531 4521      JMS I  PSTICKI
1906 02532 2256      ISZ EPTR
1907 02533 3456      DCA I  EPTR
1908 02534 2056      ISZ EPTR
1909 02535 3456      DCA I  EPTR
1910 02536 5342      JHP ,+4
1911 02537 2256      RUN2NOT, ISZ EPTR
1912 02540 2256      ISZ EPTR
1913 02541 2256      ISZ EPTR
1914 02542 2056      ISZ EPTR
1915 02543 2057      RUNZIN, ISZ FPTR
1916 02544 5314      JHP RUN2LUP
1917 02545 1204      TAD CODELOC
1918 02546 3045      DCA LOCCTR
1919 02547 1125      TAD PPDLIST
1920 02550 3236      DCA PDL
1921 02551 1004      TAD CODELOC
1922 02552 3046      DCA READLOC
1923 02553 7240      CLA CMA
1924 02554 3063      DCA FORCT
1925 02555 1164      TAD PGOLIST
1926 02556 3165      DCA GSBPTR
1927 02557 5662      JHP I  CLEARV
1928 02560 7002      07038A, 7000
1929 02561 0003      PLIMIT, LIMIT /FIRST WORD OF USER AREA
1930 02562 7253      PXXTHEN, XXTHEN

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/BASIC.L8E

PAL8-V9 / / PAGE 6-1

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1931 02563 3600 PLIST, LIST
1932 22564 7532 PYEOF, XYEOF
1933 22565 7222 PPEPMYH, PEPMSYH
1934 22566 2202 PNOTNOW, NOTNOW
1935 22567 4262 END. JMS I CLEARV
1936 22572 2537 STOP. JMS I PRESET
1937 22571 4591 JMS I PCWT /RESET ALL DEVICES NOW,
1938 22572 4510 JMS I PPRINTXT /AND WAIT FOR I/O TO FINISH UP.
1939 22573 6525 READY
1940 22574 5520 JHP I PEDIT
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1959 2600 PAGE
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1964 02600 4561 GETLRET, JMS I PLINFIX
1965 22621 4543 JMS I CNCLR
1966 22602 5603 JMP I GETLIN /CHECK TO SEE IF "C WAS TYPED WHILE HERE,
1967 22603 8202 GETLIN, 0
1968 22604 3064 DCA SNUMFLG
1969 22625 1131 TAD OUTDEV
1970 22606 3130 DCA OUT02 /GET THE OUTPUT DEVICE,
1971 22607 3131 DCA OUTDEV /SAVE FOR A SECOND,
1972 22610 1172 NEWLIN, TAD PLBEGIN /TURN OFF THE OUTPUT DEVICE,
1973 22611 3256 DCA EPTR
1974 22612 1370 TAD 040
1975 22613 3456 DCA I EPTR
1976 22614 2056 ISZ EPTR
1977 22615 4032 NEWCHAR, JMS I PGETCH
1978 22616 3456 DCA I EPTR
1979 22517 7240 CLA CMA
1980 22620 1127 TAD INDEV /CHECK THE INPUT DEVICE NOW,
1981 22621 7649 SZA CLA /GET IT, BABY,
1982 22622 5226 JMP +4 /IS IT THE TTY?
1983 22623 3133 DCA CNTLO /NOPE,
1984 22624 7201 CLA IAC /IT IS, RESET CONTROL 0,
1985 22625 3131 DCA OUTDEV /AND TEMPORARILY SET THE OUTPUT TO THE TTY.

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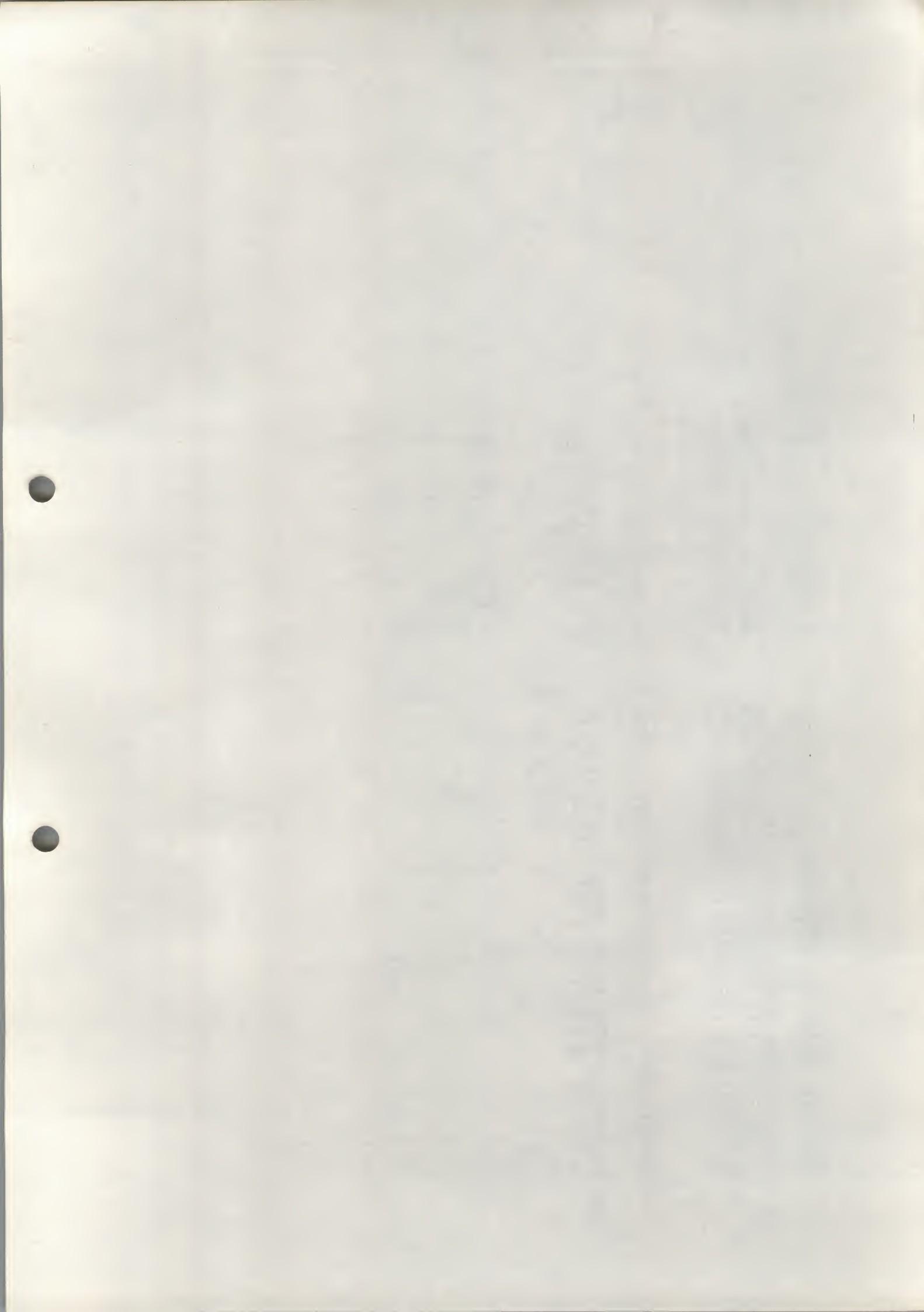
/BASIC.L8E

PAL8-V9 / / PAGE 6-2

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1986 22626 1456 TAD I EPTK
1987 22627 1374 TAD 07603
1988 22630 7450 SNA /IS IT ALT-MODE (175)
1989 22631 5263 JHP ALTMODE /YES
1990 22632 1367 TAD 036
1991 22633 7450 SNA /IS IT " "
1992 22634 5266 JMP BARROW /YES
1993 22635 1371 TAD 0122
1994 22636 7450 SNA /IS IT (CAR, RET.)
1995 22637 5300 JMP CARRET /YES
1996 22640 1375 TAD 07715
1997 22641 7450 SNA /IS IT " "
1998 22642 5215 JMP NEWCHAR /YES
1999 22643 0372 AND 01408
2000 22644 7400 SZA
2001 22645 1363 TAD 07640B
2002 22646 7640 SZA CLA /IS IT A PRINTABLE CHARACTER
2003 22647 5215 JMP NEWCHAR /NO
2004 22650 1456 TAD I EPTK
2005 22651 4433 JMS I PPUTCH
2006 22652 1056 TAD EPTR
2007 22653 2056 ISZ EPTR
2008 22654 1174 TAD MLEND
2009 22655 7640 SZA CLA
2010 22656 5215 JMP NEWCHAR
2011 22657 4537 TUBIG, JMS I PRESET /RESET ALL DEVICES NOW,
2012 22660 4514 JMS I PPRINTXT /AND GIVE THE ERROR MESSAGES,
2013 22661 5162 TOOLONG
2014 22662 5210 NEWLIN
2015 22663 4514 ALTMODE, JMS I PPRINTXT
2016 22664 6501 DELETED
2017 22665 5210 JMP NEWLIN
2018 22666 1056 BARROW, TAD EPTR
2019 22667 1173 TAD MLBEGIN
2020 22670 7650 SNA CLA
2021 22671 5215 JMP NEWCHAR
2022 22672 7242 CLA CMA
2023 22673 1056 TAD EPTK
2024 22674 3256 DCA EPTK
2025 22675 1373 TAD 03737B
2026 22676 4033 JMS I PPUTCH
2027 22677 5215 JMP NEWCHAR
2028 22700 1007 CARRET, TAD 0215
2029 22701 4033 JMS I PPUTCH
2030 22702 2134 ISZ NOINT /SET FLAG TO PREVENT INTERRUPTS AS OF NOW,
2031 22703 1172 TAD PLBEGIN /EPTR=BEGINNING OF STRING
2032 22704 3056 DCA EPTR /FPTR=WHERE TRANSLATED SYMBOL GOES
2033 22705 1037 TAD PLINBUF /GPTR=CHAR IN STRING(GE, EPTR)
2034 22706 3057 DCA FPTR /HPTR=POSITION IN TABLE
2035 22707 1377 SLOOP, TAD PTABLE
2036 22710 3061 DCA HPTR
2037 22711 1056 GLOOP, TAD EPTR
2038 22712 3060 DCA GPTR
2039 22713 1461 TAD I HPTR
2040 22714 7650 SNA CLA

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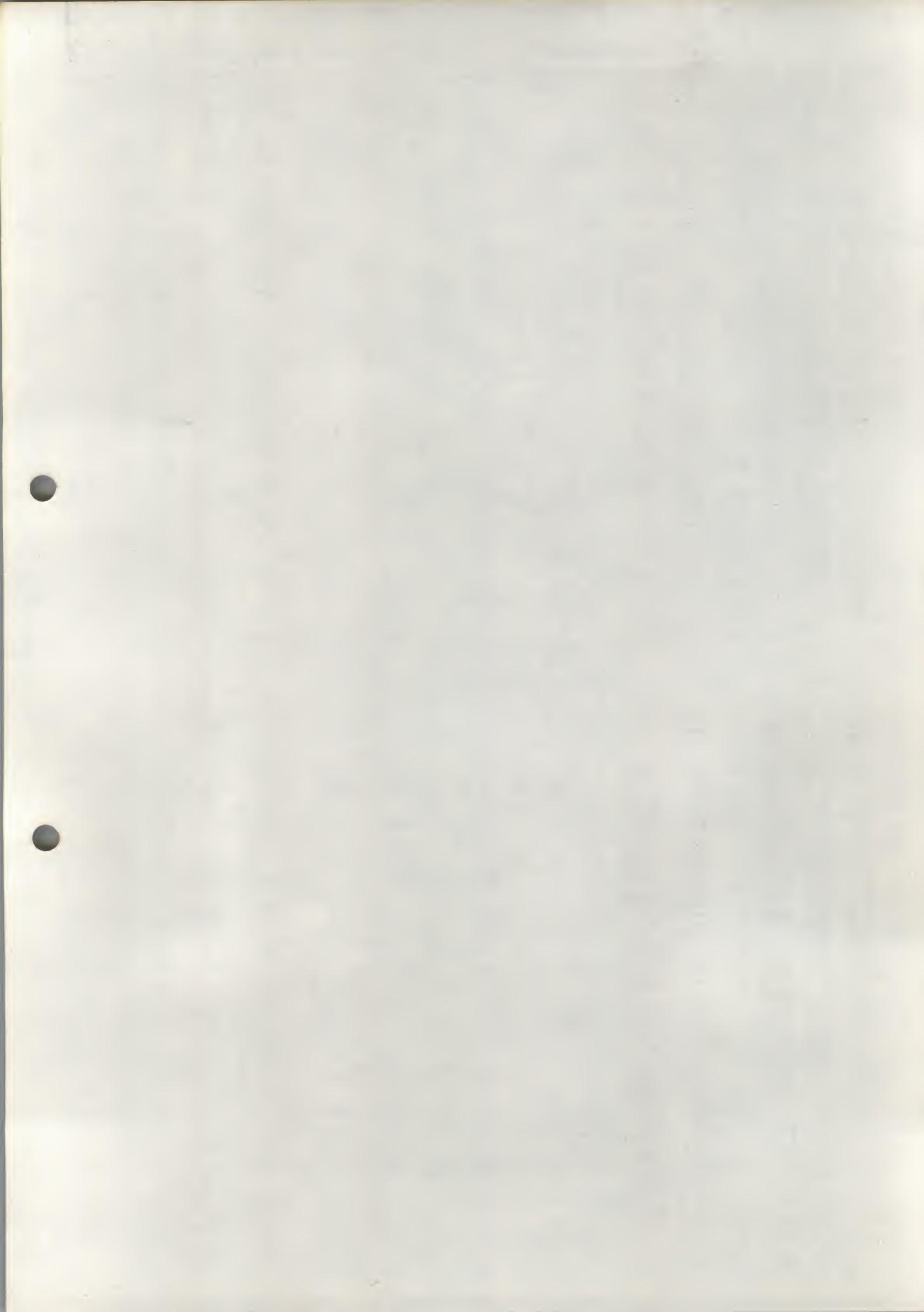
2041 . 02715 5776      JMP I  POTHER
2242 . 02716 1061      TAD   HPTR
2043 . 02717 3352      DCA   WORD
2044 . 02720 2751      ISZ   HPTR
2245 . 02721 3024      DCA   ACS
2046 . 02722 1480      HLOOP, TAD I  GPTH
2247 . 02723 1054      TAD   07740
2048 . 02724 7640      SZA CLA
2049 . 02725 5332      JMP   BSKIP
2050 . 02726 2062      ISZ   GPTH
2251 . 02727 5322      JMP   HLOOP
2052 . 02728 7332      BSKIP, CLA CLL CML RAR
2053 . 02729 1724      TAD   ACS
2054 . 02730 3724      DCA   ACS
2055 . 02731 1451      TAD I  HPTR
2056 . 02732 7432      S2L
2057 . 02733 2061      ISZ   HPTR
2058 . 02734 7438      S2L
2059 . 02735 5343      JMP   .
2060 . 02736 7212      RTR
2261 . 02737 7212      RTR
2062 . 02738 7212      RTR
2063 . 02739 0270      AND   077
2064 . 02740 7450      SNA
2065 . 02745 5766      JMP I  JMATCH
2066 . 02746 1054      TAD   07740
2067 . 02747 7450      SNA
2068 . 02750 5332      JMP   BSKIP
2269 . 02751 0270      AND   077
2270 . 02752 1370      TAD   040
2271 . 02753 7241      CIA
2272 . 02754 1460      TAD I  GPTR
2073 . 02755 2260      ISZ   GPTR
2074 . 02756 7650      SNA CLA
2075 . 02757 5322      JMP   HLOOP
2076 . 02760 1461      TAD I  HPTR
2077 . 02761 0270      AND   077
2078 . 02762 2261      ISZ   HPTR
2079 . 02763 7640      07640B, SZA CLA
2080 . 02764 5360      JMP   .
2081 . 02765 5311      JMP   GLOOP
2282 . 02766 6506      JMATCH, AMATCH
2283 . 02767 0236      036, 36
2084 . 02770 0240      040, 40
2085 . 02771 0122      0122, 122
2086 . 02772 0140      0140B, 140
2087 . 02773 3737      03737B, 3737
2088 . 02774 7603      07603, 7603
2089 . 02775 7715      07715, 7715
2090 . 02776 3232      POTHER, OTHER
2091 . 02777 7223      PTABLE, XKPLUS
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2096
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2098
2099 . 3000      PAGE
2100
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2102
2103 . 03200 4310      OTHER, JMS  NONBLNK
2104 . 03201 1321      TAD   077638
2105 . 03202 7440      SZA
2106 . 03203 5223      JMP   NOTCR
2107 . 03204 1325      TAD   PIXCRLF
2108 . 03205 3457      DCA I  FPTK
2109 . 03206 1057      TAD   FPTK
2110 . 03007 3013      DCA   INDEX1
2111 . 03010 1326      TAD   PIXXIT
2112 . 03011 3413      DCA I  INDEX1
2113 . 03012 1013      TAD   INDEX1
2114 . 03213 1241      TAD   MENDLIN
2115 . 03014 7452      SNA
2116 . 03215 5622      JMP I  PGETLRET
2117 . 03016 7710      SPA CLA
2118 . 03217 5210      JMP   .
2119 . 03020 5621      JMP I  PTUBIG
2120 . 03221 2657      PTUBIG, TUBIG
2121 . 03222 2600      PGETLRE, GETLRET
2122 . 03223 1322      NOTCR, TAD   07737
2123 . 03224 7450      SNA
2124 . 03225 5724      JMP I  JDIGIT
2125 . 03226 1302      TAD   07764B
2126 . 03227 7122      CLL
2127 . 03230 1065      TAD   012
2128 . 03231 7430      S2L
2129 . 03232 5724      JMP I  JDIGIT
2130 . 03033 1302      TAD   07725A
2131 . 03234 7100      CLL
2132 . 03235 1321      TAD   032
2133 . 03236 7430      S2L
2134 . 03237 5703      JMP I  PLETTEN
2135 . 03240 7330      CLA CLL CML RAR
2136 . 03241 1456      TAD I  EPTR
2137 . 03242 3456      DCA I  EPTR
2138 . 03243 1076      REMPACK, TAD   PTEXT
2139 . 03244 3457      DCA I  EPTR
2140 . 03245 2057      ISZ   EPTR
2141 . 03246 3307      TXTPAK, DCA   THISTXT
2142 . 03247 1456      TAD I  EPTR
2143 . 03250 1301      TAD   077638
2144 . 03251 7450      SNA
2145 . 03252 5276      JMP   CRINTYT
2146 . 03253 1324      TAD   07753
2147 . 03254 7650      SNA CLA
2148 . 03255 5372      JMP   DPOINTXT
2149 . 03256 1456      TAD I  EPTR
2150 . 03257 2072      AND   077

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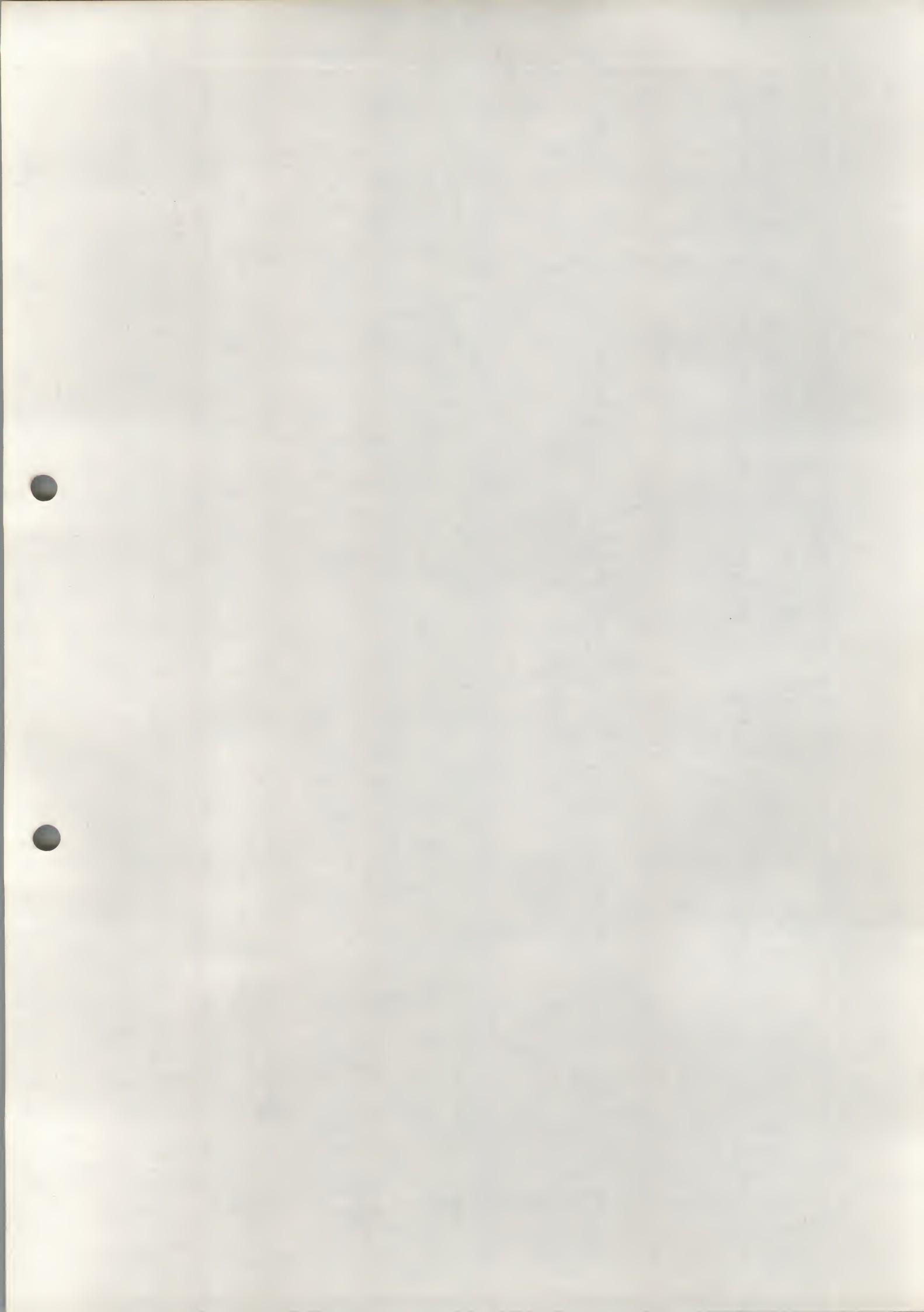
2151  83060  3456      DCA I   EPTR
2152  83061  1327      TAD    THISTXT
2153  83062  7252      SNA
2154  83063  5270      JMP    LHALF
2155  83064  1456      TAD I   EPTR
2156  83065  3457      DCA I   FPTR
2157  83066  2057      ISZ    FPTR
2158  83067  5274      JMP    RHALF
2159  83070  1656      LHALF, TAD I   EPTR
2160  83071  7100      CLL RTL
2161  83072  7006      RTL
2162  83073  7006      RTL
2163  83074  2056      RHALF, ISZ   EPTR
2164  83075  5246      JNP    TXPAK
2165  83076  1327      CRINTXT,TAD  THISTXT
2166  83077  5723      JMP I   JTXXIT
2167
2168  23102  7725      07725A, 7725
2169  23101  7763      07763B, 7763
2170  23102  7764      07764B, 7764
2171
2172
2173  23103  3496      PLETTER,LETTER
2174  03104  7753      07753, 7753
2175  23105  4200      04200, 4220
2176  23106  0042      042, 42
2177  03107  0300      THISTXT,0
2178  03110  0200      NONBLNK,0
2179  03111  1456      TAD I   EPTR
2180  03112  1054      TAD    07740
2181  03113  7640      SZA CLA
2182  03114  5317      JMP    ,+3
2183  03115  2056      ISZ   EPTR
2184  23116  5311      JMP    NONBLNK+1
2185  03117  1456      TAD I   EPTR
2186  03120  5710      JMP I   NONBLNK
2187  03121  0032      032, 32
2188  03122  7737      07737, 7737
2189  03123  3201      JTXXIT, TXXXIT
2190  03124  3204      JOIGIT, DIGIT
2191  03125  7226      PXXCRLF,XXXCRLF
2192  03126  7505      PXXEXIT,XXEXIT
2193  03127  0072      POPERA, OPERAND=1
2194  23130  7506      PXXLIT2,XXLIT3
2195  03131  4435      LITRAL, FENTER
2196  03132  2073      FST   OPERAND
2197  03133  0200      FEXIT
2198  03134  1275      TAD   OPERAND+2
2199  03135  7640      SZA CLA
2200  03136  5346      JMP    ALL3
2201  03137  1074      TAD   OPERAND+1
2202  03140  7640      SZA CLA
2203  03141  5347      JMP    JUST2
2204  03142  1073      TAD   OPERAND
2205  03143  7650      SNA CLA

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2206  03144  5350      JMP   JUST0
2207  03145  7344      JUST1, CLA CLL CMA RAL
2208  03146  7001      ALL3, IAC
2209  03147  1062      JUST2, TAD   02
2210  03150  7800      JUST0, CMA
2211  03151  3031      DCA   TMP

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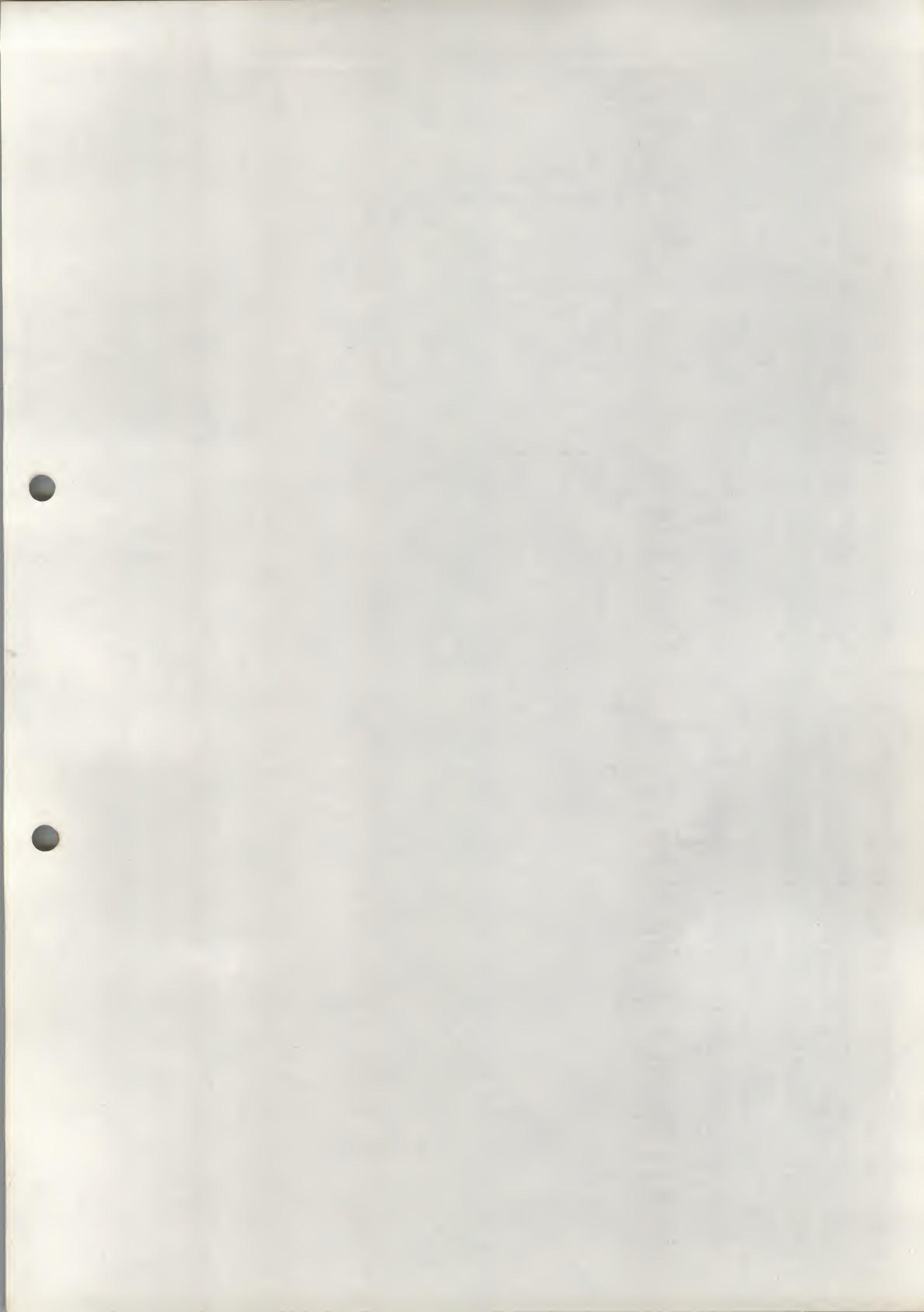
2212 03152 1327      TAD      POPERA
2213 03153 3215      DCA      INDEX1
2214 03154 1331      TAD      TMP
2215 03155 7340      CMA      PXXLITO
2216 03156 1330      TAD      JUSTOP
2217 03157 5763      JMP      JUSTOP
2218 03160 6201      JUSTOF, COF  2      /* K INSERT.
2219 03161 1413      TAD I   INDEX1
2220 03162 6211      COF      12     /* K INSERT.
2221 03163 3457      JUSTPP, DCA I EPTR
2222 03164 2737      ISZ      EPTR
2223 03165 2737      ISZ      TMP
2224 03166 5360      JMP      JUSTRF
2225 03167 5516      JMP I   PSLOOP
2226
2227
2228 03172 1327      COUNTXT, TAD  THISTXT
2229 03171 2258      ISZ      EPTR
2230 03172 7440      SZA      .
2231 03173 5376      JMP      .+3
2232 03174 1385      TAD      04220
2233 03175 5723      JMP I   JTXXIT
2234 03176 1346      TAD      042
2235 03177 3457      DCA I   EPTR
2236 03200 2057      ISZ      EPTR
2237 03201 3457      MTXXIT, DCA I EPTR
2238 03202 2257      ISZ      EPTR
2239 03203 5516      JMP I   PSLOOP
2240
2241
2242
2243 03224 7280      DIGIT, CLA
2244 03225 1464      TAD I   SNUMFLG
2245 03206 1376      TAD      01774
2246 03207 7440      SZA      /IS IT "GOTO" OR "THEN"
2247 03210 7031      IAC
2248 03211 7442      SZA      /OR "GOSUB"
2249 03212 1375      TAD      01742
2250 03213 7653      SNA CLA /OR "LIST"
2251 03214 7240      CLA CHA /YES
2252 03215 3264      DCA      SNUMFLG
2253 03216 4035      FENTER
2254 03217 3152      FLD      ZERO
2255 03220 0000      FEXIT
2256 03221 3365      DCA      DPFLAG
2257 03222 3366      DCA      DECFRAC
2258 03223 7410      SKP
2259 03224 2056      DIGIN, ISZ      EPTR
2260 03225 4522      JMS I   PN0NBLNK
2261 03226 1316      TAD      07673
2262 03227 7450      SNA
2263 03230 5263      JMP      ITSE
2264 03231 1373      TAD      027
2265 03232 7050      SNA
2266 03233 5256      JMP      ITSCP

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2267 03234 1374      TAD      07764C
2268 03235 7100      CLL
2269 03236 1065      TAD      012
2270 03237 7420      SNL
2271 03242 5331      JMP      ENONUM
2272 03241 7110      CLL RAR
2273 03242 1373      TAD      02043A
2274 03243 3360      DCA      FDIGIT
2275 03244 7010      RAR
2276 03245 3361      DCA      FDIGIT+1
2277 03246 4439      FENTER
2278 03247 6545      FMPI      PTEN
2279 03250 4310      FAD-FWD+FDIGIT=.
2280 03251 0220      FEXIT
2281 03252 1365      TAD      DPFLAG
2282 03253 7640      SZA CLA
2283 03254 2366      ISZ      DECFRAC
2284 03255 5224      JMP      DIGIN
2285 03256 1365      TAD      DPFLAG
2286 03257 7640      SZA CLA
2287 03260 5331      JMP      ENONUM
2288 03261 2365      ISZ      DPFLAG
2289 03262 5224      JMP      DIGIN
2290 03263 3360      ITSE, DCA      FDIGIT
2291 03264 1064      TAD      SNUMFLG
2292 03265 7640      SZA CLA
2293 03266 5331      JMP      ENONUM
2294 03267 2256      ISZ      EPTR
2295 03270 4522      JMS I   PN0NBLNK
2296 03271 1371      TAD      077258
2297 03272 7450      SNA
2298 03273 5300      JMP      ITSP
2299 03274 1372      TAD      07776
2300 03275 7640      SZA CLA
2301 03276 5321      JMP      NOTSGN
2302 03277 2360      ISZ      FDIGIT
2303 03300 2056      ITSP, ISZ      EPTR
2304 03301 4767      NOTSGN, JMS I   JISDIG
2305 03302 5331      JMP      ENONUM
2306 03303 2056      ISZ      EPTR
2307 03304 3361      DCA      FDIGIT+1
2308 03305 4767      JMS I   JISDIG
2309 03306 5322      JMP      ONLYI
2310 03307 7200      CLA
2311 03310 1361      TAD      FDIGIT+1
2312 03311 7126      CLL RTL
2313 03312 1361      TAD      FDIGIT+1
2314 03313 7124      CLL RAL
2315 03314 3361      DCA      FDIGIT+1
2316 03315 4767      JMS I   JISDIG
2317 03316 7673      07673, 7673
2318 03317 1361      TAD      FDIGIT+1
2319 03320 3361      DCA      FDIGIT+1
2320 03321 2256      ISZ, EPTR
2321 03322 1360      ONLYI, TAD      FDIGIT

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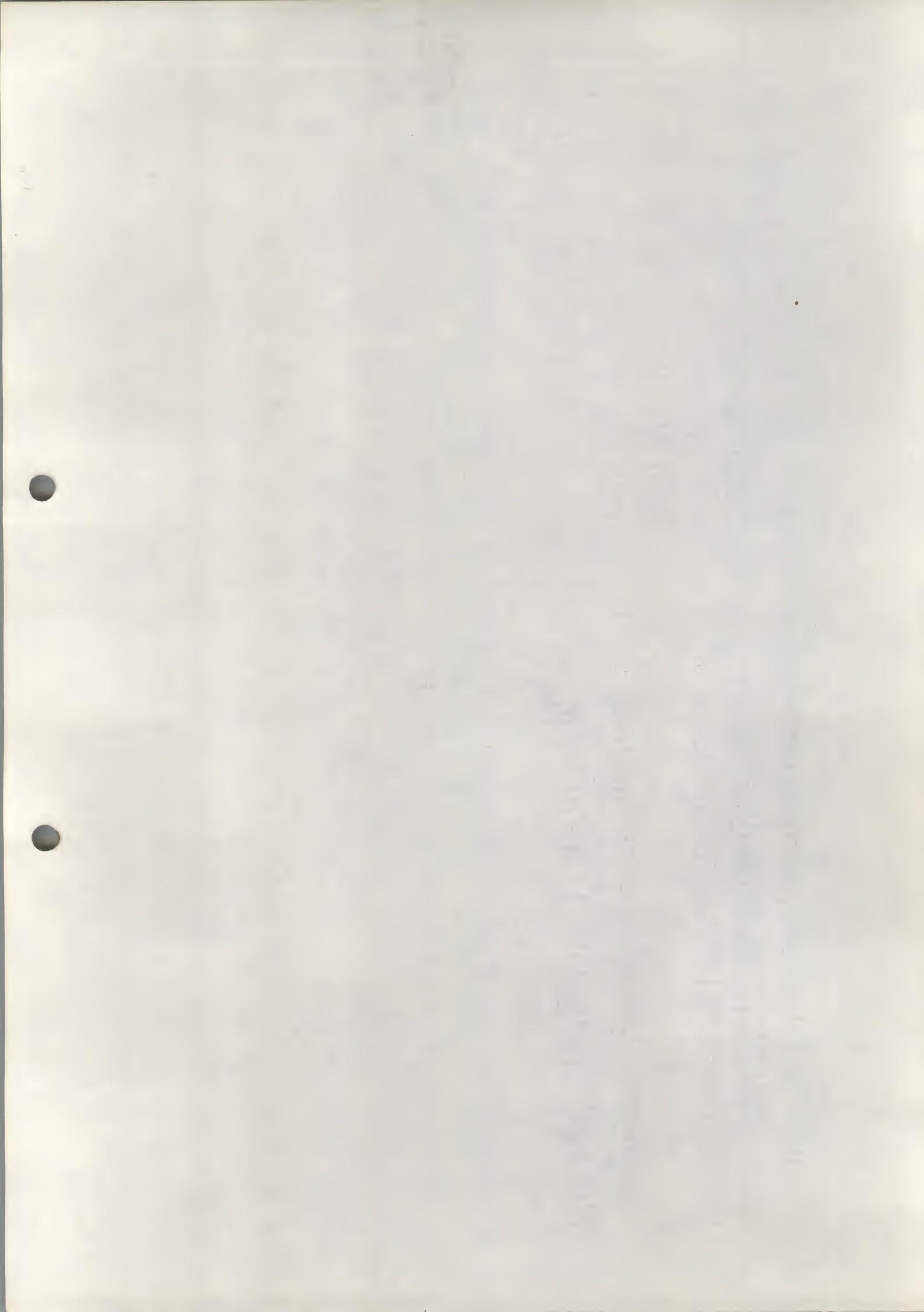
2322 03323 7110 CLL RAR
2323 03324 1361 TAD FDIGIT+1
2324 03325 7420 SNL
2325 03326 7241 CIA
2326 03327 1360 TAD DECFRAC
2327 03328 3366 DCA DECFRAC
2328 03329 3366 ENDNUM, CLA
2329 03330 1366 TAD DECFRAC
2330 03331 7203 SMA CLA
2331 03332 1364 TAD DIVXTE
2332 03333 1363 TAD MULXTE
2333 03334 3346 DCA MULEXP
2334 03335 1166 TAD DECFRAC
2335 03336 7510 SPA
2336 03337 7241 CIA
2337 03338 7240 CIA
2338 03339 3368 DCA DECFRAC
2339 03340 5350 JMP *4
2340 03341 4435 FENTER
2341 03342 7422 MULEXP, HLT
2342 03343 0222 FEXIT
2343 03344 2366 ISZ DECFRAC
2344 03345 5345 JMP *4
2345 03346 2064 ISZ SNUMFLG
2346 03347 5777 JMP I PLITRAL
2347 03348 4526 JMS I PFX
2348 03349 7200 CLA
2349 03350 5757 JMP I PCOMMON
2350 03351 3400 PCOMMON,COMMON
2351 03352 0002 FDIGIT, B101C
2352 03353 0020
2353 03354 0380
2354 03355 6545 MULXTE,FMPI PTEN
2355 03356 1000 DIVXTE,FDV=FMP
2356 03357 0200 OFFLAG, 0
2357 03358 2200 DECFRAC,0
2358 03359 6532 J1SDIG, ISDIG
2359 03360 0027 027, 27
2360 03361 7725 077258, 7725
2361 03362 7776 07776, 7776
2362 03363 2040 02040A, 2040
2363 03364 7764 07764C, 7764
2364 03365 1742 01742, 1742
2365 03366 1774 01774, 1774
2366 03367 3131 PLITRAL,LITERAL
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2376      3400      PAGE

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2377 03400 1025 COMMON, TAD PSYMTAB
2378 03401 3060 DCA GPTR
2379 03402 1006 TAD NSYMTAB
2380 03403 3061 DCA HPTR
2381 03404 5231 JMP IN
2382 03405 1460 LUP, TAD I GPTR
2383 03406 2060 ISZ GPTR
2384 03407 2060 ISZ GPTR
2385 03408 7640 SZA CLA /IS IT A LINENO
2386 03409 5227 JMP NOT /NO
2387 03410 1460 TAD I GPTR
2388 03411 2060 ISZ GPTR
2389 03412 7241 CIA
2390 03413 1017 TAD AC2
2391 03414 7640 SZA CLA
2392 03415 5230 JMP NOT+1
2393 03416 1460 TAD I GPTR
2394 03417 7241 CIA
2395 03418 1216 TAD AC3
2396 03419 7640 SZA CLA
2397 03420 5230 JMP NOT+1
2398 03421 7346 CLA CLL CMA RTL
2399 03422 1216 5312 JMP ISDEF2
2400 03423 5230 5205 JMP LUP
2401 03424 7241 5151 JMS I PGETBLK
2402 03425 2062 NOT, 3064 DCA SNUMFLG
2403 03426 2060 3064 DCA I SNUMFLG
2404 03427 2060 1064 TAD SNUMFLG
2405 03428 3013 3013 DCA INDEX1
2406 03429 3413 3413 DCA I INDEX1
2407 03430 1017 1017 TAD AC2
2408 03431 2061 2061 IN, 3413 DCA I INDEX1
2409 03432 5205 5205 JMP LUP
2410 03433 4515 4515 JMS I PGETBLK
2411 03434 3064 3064 DCA SNUMFLG
2412 03435 3464 3464 DCA I SNUMFLG
2413 03436 1064 1064 TAD INDEX1
2414 03437 3213 3213 DCA INDEX1
2415 03438 1017 1017 TAD AC2
2416 03439 3413 3413 DCA I INDEX1
2417 03440 5314 5314 JMP ITSDEF
2418 03441 7021 LETTER, IAC 7021 CLL RTL
2419 03442 7106 7106 RTL
2420 03443 7206 7206 RTL
2421 03444 3031 3031 DCA TMP
2422 03445 2256 2256 ISZ EPTR
2423 03446 4522 4522 JMS I PNONBLNK
2424 03447 1273 1273 TAD 077C6C
2425 03448 7120 7120 CLL
2426 03449 1065 1065 TAD 012
2427 03450 7620 7620 SNA CLA
2428 03451 5266 5266 JMP SIMPLY
2429 03452 7206 7206 TAD EPTR
2430 03453 3031 3031 DCA TMP
2431 03454 2056 2056 ISZ EPTR
2432 03455 1005 1005 SIMPLY, TAD PSYMTAB

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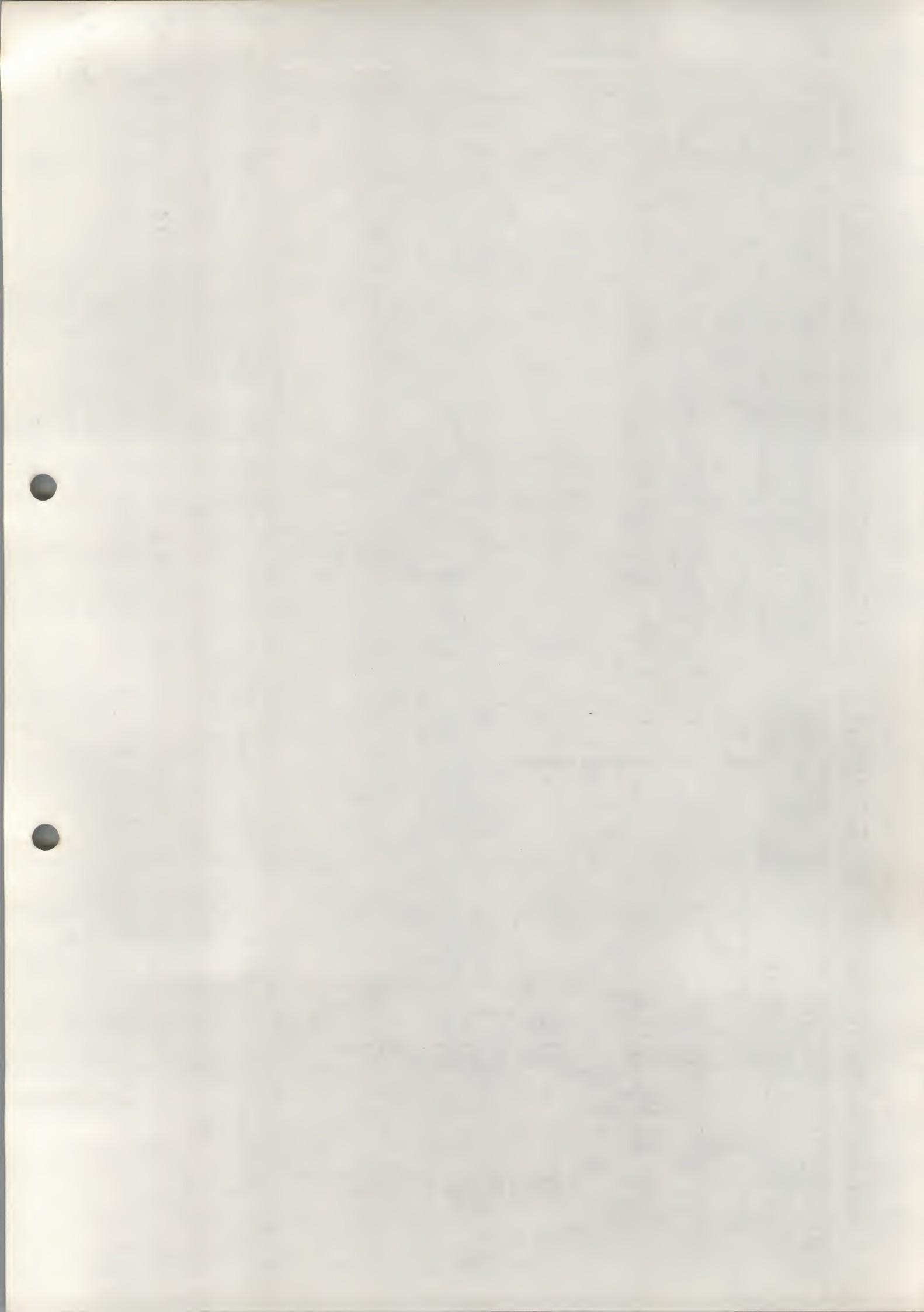
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2433 03470 1800      TAD      NSVMTAB
2434 03471 3261      DCA      HPTR
2435 03472 5324      JMP     VSCHIN
2436 03473 7725      0770BC, 7706
2437 03474 7020      070226, 7020
2438 03475 1460      VSCHLUP, TAD I   GPTR
2439 03476 1274      TAD      070226
2440 03477 7640      SZA CLA
2441 03478 5322      JMP     VSCHNOT
2442 03479 2060      ISZ      GPTR
2443 03480 1460      TAD I   GPTR
2444 03481 3264      DCA      SNUMFLG
2445 03482 1464      TAD I   SNUMFLG
2446 03483 7041      CIA
2447 03484 1031      TAD      THR
2448 03485 7640      SZA CLA
2449 03486 5321      JMP     VSCHNOT+1
2450 03487 7240      CLA CMA
2451 03488 1260      ISDEF2, TAD   GPTR
2452 03489 3264      DCA      SNUMFLG
2453 03490 1064      ITSDEF, TAD   SNUMFLG
2454 03491 3457      DCA I   FPTR
2455 03492 2057      ISZ      FPTR
2456 03493 5516      JMP I   PSLOOP
2457 03494 2060      VSCHNOT, ISZ   GPTR
2458 03495 2060      ISZ      GPTR
2459 03496 2260      ISZ      GPTR
2460 03497 2260      ISZ      GPTR
2461 03498 2061      VSCHIN, ISZ   HPTR
2462 03499 5275      JMP     VSCHLUP
2463 03500 4515      JMS I   PGETBLK
2464 03501 3264      DCA      SNUMFLG
2465 03502 7240      CLA CMA
2466 03503 1264      TAD      SNUMFLG
2467 03504 3213      DCA      INDEX1
2468 03505 1350      TAD      01000
2469 03506 3413      DCA I   INDEX1
2470 03507 1003      TAD      ARRLOC
2471 03508 3413      DCA I   INDEX1
2472 03509 3413      DCA I   INDEX1
2473 03510 3413      DCA I   INDEX1
2474 03511 4563      JMS I   PCMKFIT
2475 03512 1031      TAD      TMP
2476 03513 4521      JMS I   PSTICKI
2477 03514 4521      JMS I   PSTICKI
2478 03515 4521      JMS I   PSTICKI
2479 03516 4521      JMS I   PSTICKI
2480 03517 5314      JMP     ITSEDEF
2481 03518 1000      01000, 1000
2482 03519 0000      POP,    0
2483 03520 7240      CLA CMA
2484 03521 1036      TAD      PDL
2485 03522 3036      DCA      PDL
2486 03523 1436      TAD I   PDL

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2487 03556 5751      JMP I   POP
2488 03557 3737      FOURLF, TEXT "*****"
2489 03558 3737
2490 03559 2000
2491 03560 3724      UGH1,   TEXT "TOO BIG, LINE IGNORED"
2492 03561 1717
2493 03562 4002
2494 03563 1717
2495 03564 4002
2496 03565 1107
2497 03566 5640
2498 03567 1411
2499 03568 1605
2500 03569 4011
2501 03570 0716
2502 03571 1722
2503 03572 2534
2504 03573 3700
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2512 3600      PAGE
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2514
2515 03600 1746      LIST, TAD I   PXLINBUF
2516 03601 3250      DCA      WORD
2517 03602 4566      ISIT
2518 03603 3476      3476      /CHECK FOR A "*"
2519 03604 5210      JMP     .**4      /NOPE.
2520 03605 7240      CLA CMA
2521 03606 4541      JMS I   PCWT      /YEP, SET UP PUTRA BY GIVING A PHONEY
2522 03607 4177      JMS GETWD  /CALL TO THE WAIT ROUTINE,
2523 03608 4566      ISIT      /AND GET ANOTHER WORD NOW.
2524 03609 2000      0200
2525 03610 5216      JMP     LISTALL
2526 03611 2350      ISZ      WORD
2527 03612 1450      TAD I   WORD
2528 03613 7450      SNA
2529 03614 1024      LISTALL, TAD -CODELOC
2530 03615 3245      LISTSCN, DCA LOCCTR
2531 03616 4177      LISTLUP, JMS GETWD
2532 03617 4566      ISIT      /(EOF)
2533 03618 1755      1755
2534 03619 5230      JMP     LNDEND  /NOT DONE YET
2535 03620 4541      JMS I   PCWT      /WAIT FOR I/O TO FINISH AND CLEAN UP,
2536 03621 4322      JMS PRINTXT
2537 03622 3557      FOURLF
2538 03623 5520      JMS I   PEDIT
2539 03624 4566      LNDEND, ISIT  /A LINENO
2540 03625 0200      0200
2541 03626 5240      JMP     LIST2  /NO

```



/BASIC,L8E

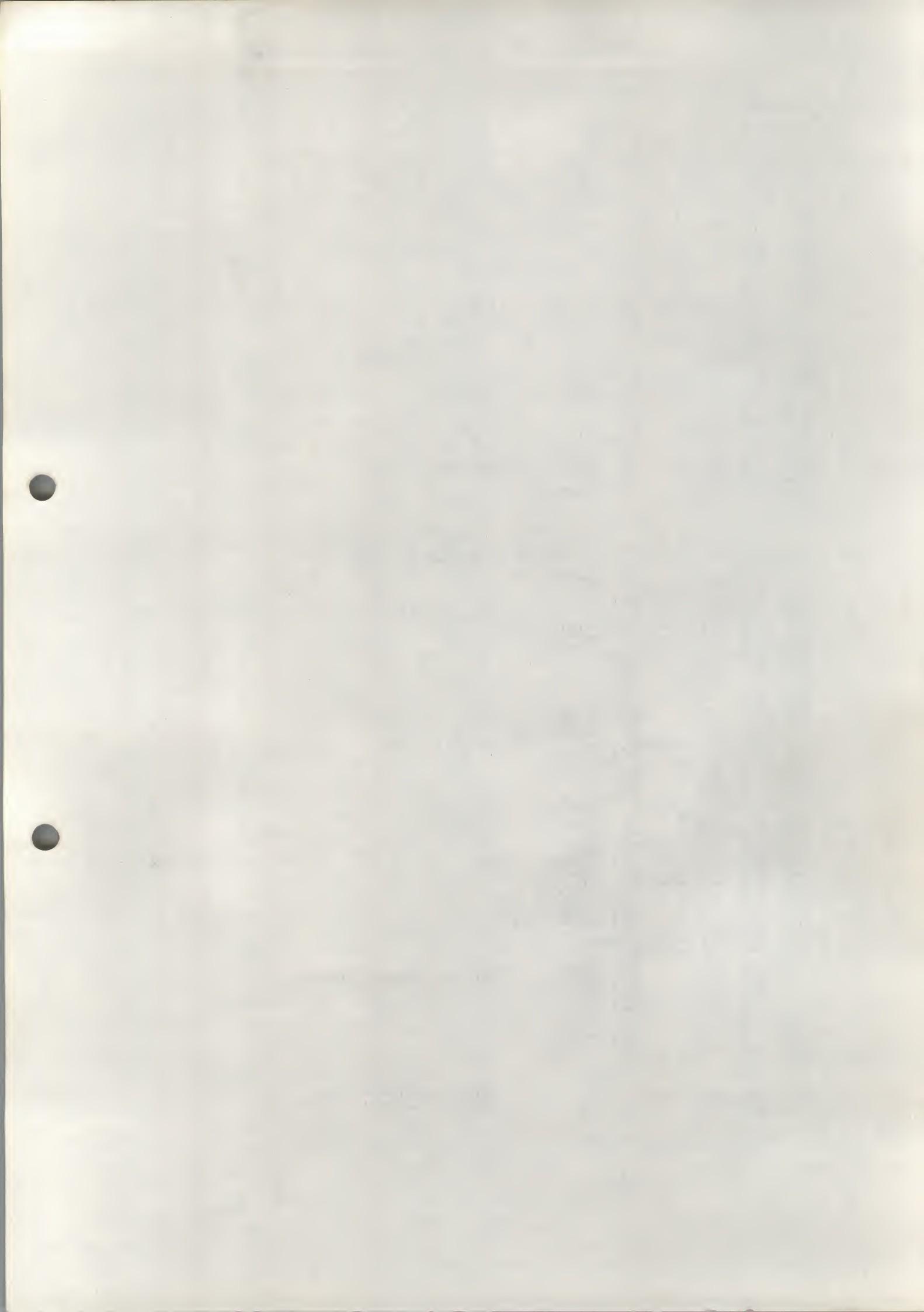
PAL8-V9 / / PAGE 7-6

```
2542 03633 1050 TAD WORD
2543 03634 4523 JMS I PPUTNUM
2544 03635 1051 TAD 0292
2545 03636 4453 JMS I PPUTCH
2546 03637 5220 JMP LISTLUP
2547 03642 4566 LIST2, ISIT // A VARIABLE
2548 03641 7320 7020
2549 03642 5255 JMP LIST3
2550 03643 2250 IS2 WORD
2551 03644 1450 TAG I WORD
2552 03645 3050 DCA WORD
2553 03646 1450 TAD I WORD
2554 03647 3253 DCA PRINVAR
2555 03648 8372 JMS PRINTXT
2556 03651 3653 PRINVAR
2557 03652 5220 JMP LISTLUP
2558 03653 0220 PRINVAR,B
2559 03654 0230 R
2560 03655 4575 LIST3, JMS I PISITLIT /ISIT A LITERAL
2561 03656 5261 JMP LIST4 /NO
2562 03657 4517 JMS I POUTNUM /PRINT IT
2563 03660 5220 JMP LISTLUP
2564 03661 4566 LIST4, ISIT // (TEXT)
2565 03662 5220 5000
2566 03663 5276 JMP LIST5
2567 03664 4177 L4LUP, JMS GETWD
2568 03665 1250 TAD WORD
2569 03666 3253 DCA PRINVAR
2570 03667 4382 JMS PRINTXT
2571 03670 3653 PRINVAR
2572 03671 1050 TAD WORD
2573 03672 2073 AND 077
2574 03673 7640 SZA CLA
2575 03674 5254 JMP L4LUP
2576 03675 5220 JMP LISTLUP
2577 03676 1050 LISTS, TAD WORD /ITS A SYSTEM SYMBOL
2578 03677 7221 IAC
2579 03700 4382 JMS PRINTXT
```

/BASIC,L8E

PAL8-V9 / / PAGE 8

```
2582 03701 5220 JMP LISTLUP
2581 03702 2020 PRINTXT,0
2582 03703 7440 SZA
2583 03704 5310 JMP JBENTP+1 //***** 8 K INSERT.
2584 03705 6221 CDF 2 //***** 8 K INSERT.
2585 03726 1702 TAD I PRINTXT
2586 03727 2322 JBENTP, ISZ PRINTXT
2587 03710 3242 DCA PRTEMP
2588 03711 1442 PRLOOP, TAD I PRTEMP
2589 03712 7212 RTR
2590 03713 7012 RTR
2591 03714 7012 RTR
2592 03715 4324 JMS PRSUBR
2593 03716 1442 TAD I PRTEMP
2594 03717 4324 JMS PRSUBR
2595 03720 2042 ISZ PRTEMP
2596 03721 5311 JMP PRLOOP
2597 03722 6211 PRTEXRET,CDF 10 //***** 8 K INSERT.
2598 03723 5702 JMP I PRINTXT
2599 03724 2282 PRSUBR, 0
2600 03725 0270 AND 077
2601 03726 7450 SNA
2602 03727 5322 JMP PRTEXRET
2603 03732 1345 TAD 07741
2604 03731 7450 SNA
2605 03732 5340 JMP CRLFPR
2606 03733 1070 TAD 077
2607 03734 0270 AND 077
2608 03735 1051 TAD 0240
2609 03736 4433 JMS I PPUTCH
2610 03737 5724 JMP I PRSUBR
2611 03740 1027 CRLFPR, TAD 0215
2612 03741 4433 JMS I PPUTCH
2613 03742 1010 TAD 0212
2614 03743 4433 JMS I PPUTCH
2615 03744 5724 JMP I PRSUBR
2616 03745 7741 07741, 7741
2617 03746 7513 PXLINBU,LINBUF+1
2618 03747 2220 PRINUM, 0
2619 03750 7001 IAC
2620 03751 3013 DCA INDEX1
2621 03752 4362 JMS BEGFIX
2622 03753 1413 TAD I INDEX1
2623 03754 3217 DCA AC2
2624 03755 1413 TAD I INDEX1
2625 03756 3016 DCA AC3
2626 03757 4546 JMS I PANORM
2627 03760 4517 JMS I POUTNUM
2628 03761 5747 JMP I PRINUM
2629
2630
2631
2632
2633 03762 0000 BEGFIX, 0 //SETS UP FOR INTEGER TO AC MODE.
2634 03763 3017 DCA AC2 //CLEAR THEM ALL, EXCEPT FOR LOW WORD.
```



18ASIC.LBE

PAL 8-V9 / / PAGE 8-1

PAGE 8-1

	03764	3220	DCA	AC1
2635	03765	3212	DCA	OV
2636	03766	3224	DCA	ACS
2637	03767	1372	TAD	0233
2638	03770	3225	DCA	ACE
2639	03771	5762	JMP I	BEGFIX
2640	03772	0233	0233,	233
2641				
2642				
2643				
2644				
2645	03773	0571	RESTORE,CCT+HUSTBE	/ (CR) OR "N"
2646	03774	2220	2220	
2647	03775	1034	TAD	CODELOC
2648	03776	3246	DCA	READLOC
2649	03777	5523	JMP I	PEXECUTE
2650				
2651				
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2670	4020		PAGE	
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2674	04020	4566	HOREIN, ISIT	/ (CR) OR "N"
2675	04021	2200	2220	
2676	04022	5234	JMP	INPLUP
2677	04023	1010	TAD	0212
2678	04024	4033	JMS I	PPUTCH
2679	04025	1130	TAD	OUTD2
2680	04026	3131	DCA	OUTDEV
2681	04027	7243	INPUT,	CLA CHA
2682	04028	1127	TAD	INDEV
2683	04029	7640	SZA CLA	
2684	04032	5224	JMP	IPNOPE
2685	04033	1131	TAD	OUTODEV
2686	04034	4584	JMS I	PPUSH
2687	04035	7231	CLA IAC	
2688	04036	3131	DCA	OUTDEV
2689	04037	4541	JMS I	PCWT
2690				

```
/GET THE OLD OUTPUT DEVICE.  
/AND RESET IT.  
/CHECK THE INPUT DEVICE NOW.  
/ARE WE INPUT FROM THE TELETYPE.  
  
/NOPE,  
/GET THE OUTPUT DEVICE.  
/SAVE IT FOR A SECOND.  
/SET OUTPUT DEVICE TO TTY FOR "?"  
  
/WAIT FOR OUTPUT TO FINISH, THEN CONTINUE
```

1/BASIC.L8E

PALS-V9 / / PAGE 8-2

PAGE 8-2

/RESET OUTPUT DEVICE NOW.

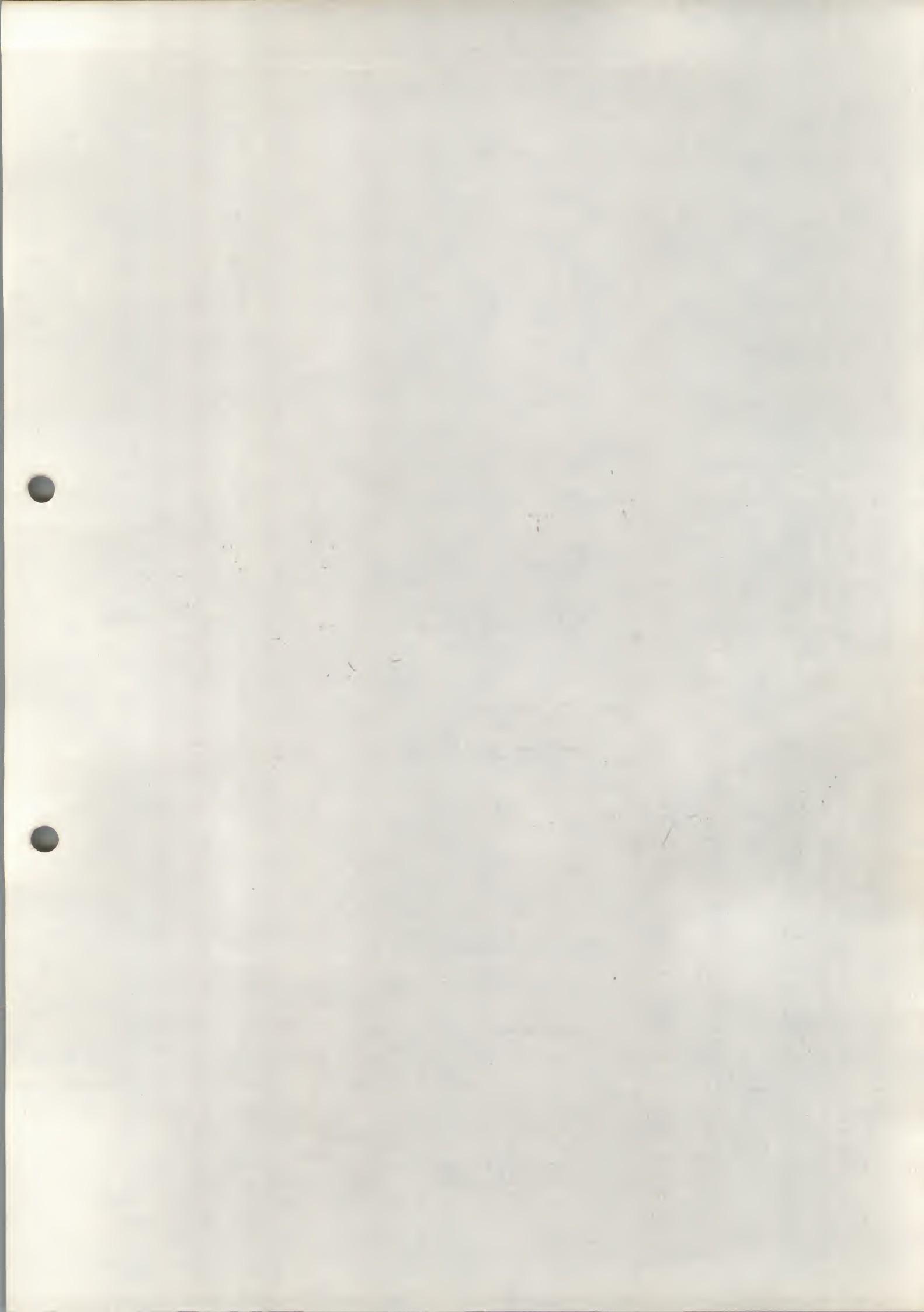
2690 04220 1070 TAD 077
 2691 04221 4433 JMS I PPUTCH
 2692 04222 4525 JMS I PPOP
 2693 04223 3131 DCA OUTDEV
 2694 04224 1045 IPNOPE, TAD LOCCTR
 2695 04225 3565 DCA I GSBPTR
 2696 04226 1076 TAD PTEXT
 2697 04227 4524 JMS I PGETLIN
 2698 04230 1565 TAD I GSBPTR
 2699 04231 3045 DCA LOCCTR
 2700 04232 1037 TAD PLINBUF
 2701 04233 3263 DCA INPPTR
 2702 04234 4513 INPLUP, JMS I PGETVAR
 2703 04235 1050 TAD WORD
 2724 04236 3264 DCA INWDOTMP
 2725 04237 1045 TAD LOCCTR
 2726 04040 3265 DCA INLC TMP
 2727 04041 1263 TAD INPPTR
 2728 04042 3245 DCA LOCCTR
 2729 04243 4521 JMS I PEVAL
 2710 04044 1045 TAD LOCCTR
 2711 04045 3263 DCA INPPTR
 2712 04046 1265 TAD INLC TMP
 2713 04047 3045 DCA LOCCTR
 2714 04250 4512 JMS I PSTOVAR
 2715 04251 7332 CLA CLL CML RTR
 2716 04252 1664 TAD I INWDOTMP
 2717 04253 7640 SZA CLA
 2718 04054 5220 JMP MOREIN
 2719 04255 1010 TAD 0212
 2720 04056 4433 JMS I PPUTCH
 2721 04057 1130 TAD OUT02
 2722 04260 3131 DCA OUTDEV
 2723 04061 3126 DCA COLUMN
 2724 04062 5503 JMP I PEXECUTE
 2725 04063 0200 INPPTR, 0
 2726 04064 0220 INWDOTMP, 0
 2727 04065 0200 INLC TMP, 0
 2728 04066 0200 XGISIT, 0
 2729 04067 4177 JMS GETWD
 2730 04070 1266 TAD XGISIT
 2731 04071 3273 DCA XISIT
 2732 04072 5274 JMP XISIT+1
 2733 04073 0200 XISIT, 0
 2734 04074 1450 TAD I WORD
 2735 04075 6201 CDF 0
 2736 04076 1673 TAD I XISIT
 2737 04077 6211 CDF 10
 2738 04120 2273 ISZ XISIT
 2739 04121 7650 SNA CLA
 2740 04122 2273 ISZ XISIT
 2741 04123 5673 JMP I XISIT
 2742 04124 0220 ISITLIT, 0
 2743 04135 1452 TAD I WORD
 2744 04136 7146 CLL CMA RTL

/RESET OUTPUT DEVICE NOW.

/RESET THE DEV.

***** B K INSERT.

***** B K INSERT.



```

2745 04107 7032      CML RTR
2746 04110 3224      DCA    ACS
2747 04111 1224      TAD    ACS
2748 04112 1160      TAD    04
2749 04113 7520      SML CLA
2750 04114 5724      JMP I  ISITLIT
2751 04115 2324      ISZ   ISITLIT
2752 04116 3220      DCA   AC1
2753 04117 3217      DCA   AC2
2754 04120 3216      DCA   AC3
2755 04121 4733      JMS   ISLIT
2756 04122 3216      DCA   AC3
2757 04123 4233      JMS   ISLIT
2758 04124 3217      DCA   AC2
2759 04125 4233      JMS   ISLIT
2760 04126 3220      DCA   AC1
2761 04127 4235      LOADED, FENTER
2762 04130 3216      FLD   AC3
2763 04131 2220      FEXIT
2764 04132 5704      JMP I  ISITLIT
2765 04133 0200      ISLIT, 2
2766 04134 2224      ISZ   ACS
2767 04135 7410      SXP
2768 04136 5327      JMP   LOADED
2769 04137 4177      JMS   GETWD
2770 04140 1252      TAD   WORD
2771 04141 5733      JMP I  ISLIT
2772 04142 0200      ERROR, 0
2773 04143 4537      JMS I  PRESET
2774 04144 0514      JMS I  PPRINTXT
2775 04145 6531      CRLF
2776 04146 1342      TAD   ERROR
2777 04147 3351      DCA   .+2
2778 04150 4514      JMS I  PPRINTXT
2779 04151 7402      HLT
2780 04152 4514      JMS I  PPRINTXT
2781 04153 4170      QERROR
2782 04154 1452      TAD I  LINENO
2783 04155 7710      SPA CLA
2784 04156 5363      JMP   .+5
2785 04157 4514      JMS I  PPRINTXT
2786 04160 6451      ATLINE
2787 04161 1252      TAD   LINENO
2788 04162 4523      JMS I  PPRINUM
2789 04163 4514      JMS I  PPRINTXT
2790 04164 6531      CRLF
2791 04165 1125      TAD   PPDLIST
2792 04166 3036      DCA   PDL
2793 04167 5520      JMP I  FEDIT
2794 04170 4005      GERROR, TEXT, "ERROR"
2795 04171 2222
2796 04172 1722
2797 04173 0000
2798
2799

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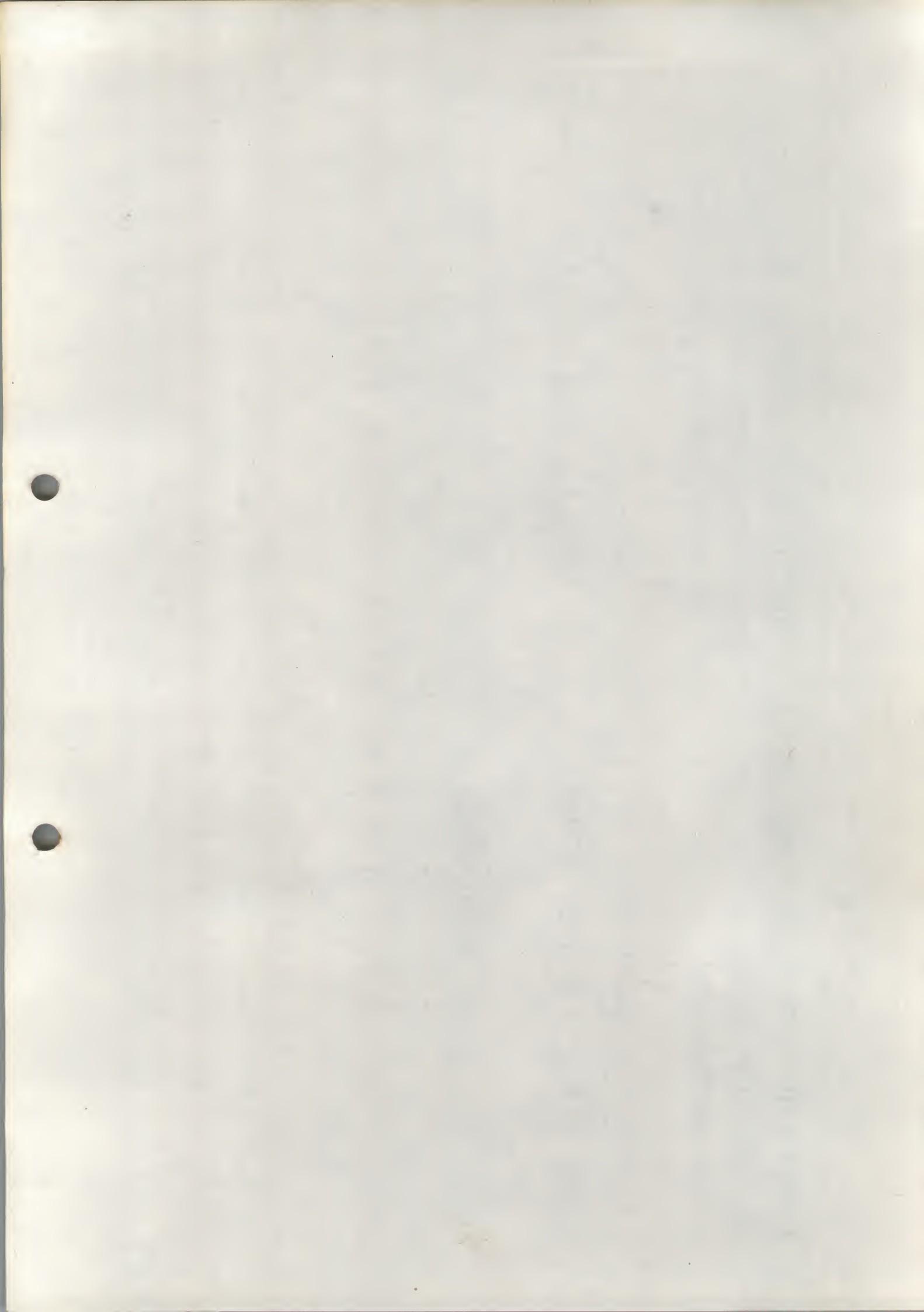
/RESET ALL I/O DEVICES.

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2805 4200      PAGE
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2826 04200 0220      FPT, 0
2827 04201 5224      JMP .,+3
2828 04222 4566      FPLOOP, JMS I  PANORM
2829 04203 2200      ISZ   FPT
2830 04224 6201      CDF  0
2831 04205 1600      TAD I  FPT
2832 04206 7206      RTL
2833 04207 7206      RTL
2834 04210 0072      AND  07
2835 04211 7450      SNA
2836 04212 5305      JMP   FPOPER
2837 04213 3273      DCA   FPGOTO
2838 04214 1600      TAD I  FPT
2839 04215 2155      AND  0200
2840 04216 7450      SNA CLA
2841 04217 5227      JMP   FPPGZ
2842 04220 1600      TAD I  FPT
2843 04221 0027      AND  0177
2844 04222 7430      SZL
2845 04223 7041      CIA
2846 04224 1200      TAD   FPT
2847 04225 3324      CCA   FPADDR
2848 04226 5237      JMP   FPDOIT
2849 04227 1600      FPPGZ, TAD I  FPT
2850 04230 0027      AND  0177
2851 04231 3304      DCA   FPADDR
2852 04232 7420      SML
2853 04233 5237      JMP   FPDOIT
2854 04234 1704      TAD I  FPADDR

```

***** B K INSERT.



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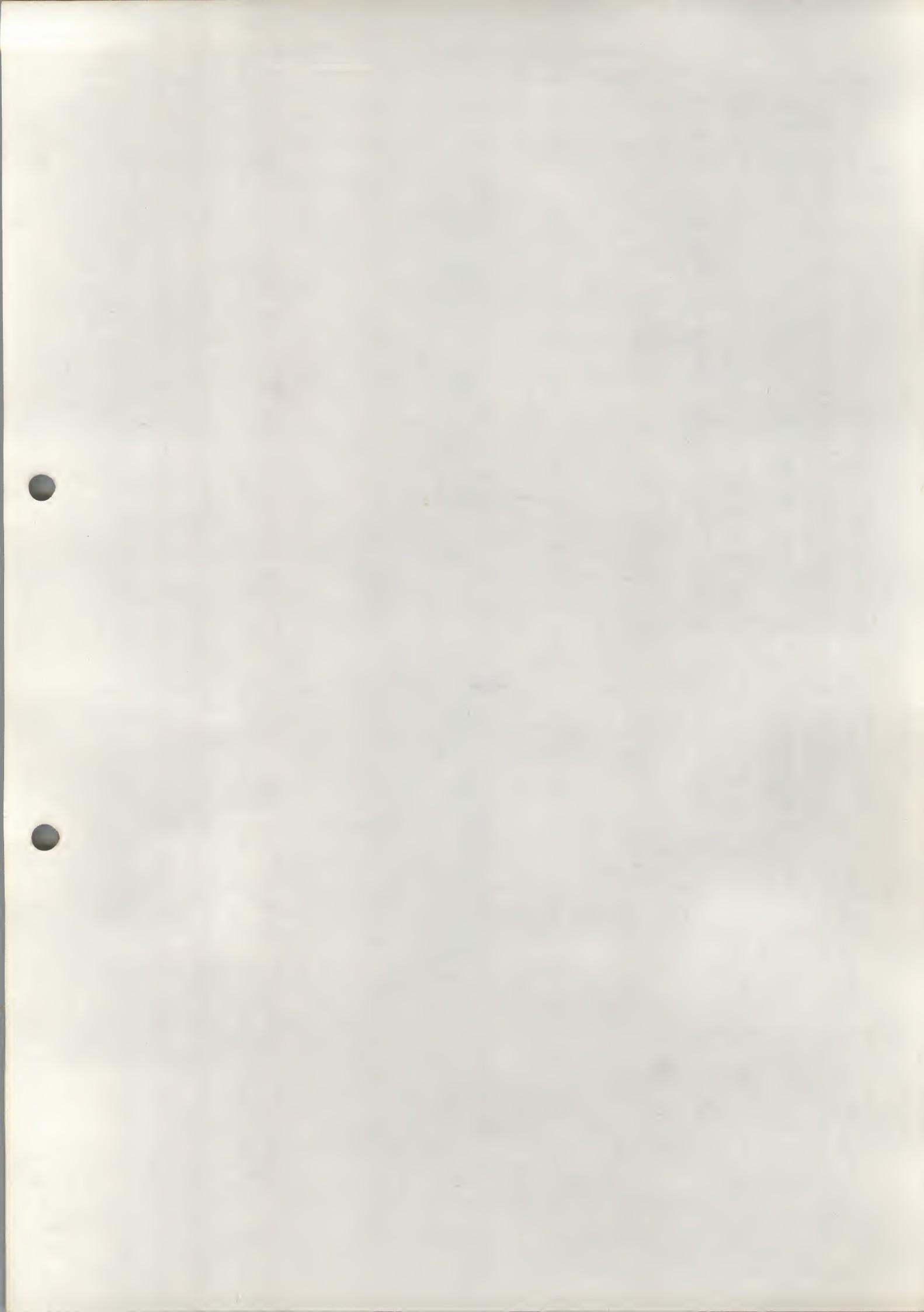
2855 04235 3304      DCA     FPADDR
2856 04236 6211      CDF     10          ***** 8 K INSERT.
2857 04237 7346      FPODIT, CLA CLL CMA RTL
2858 04240 1273      TAD     FPGOTO
2859 04241 7710      SPA     CLA
2860 04242 5273      JMP     FPNCADR
2861 04243 7330      CLA CLL CML RAR
2862 04244 3704      AND I  FPADDR
2863 04245 3726      DCA     OPS
2864 04246 1724      TAD I  FPADDR
2865 04247 7808      SZA     CLA
2866 04248 7747      CLA
2867 04251 3156      DCA     FPFLAG
2868 04252 1704      TAD I  FPADDR
2869 04253 7712      RTR
2870 04254 7712      RAR
2871 04255 2871      AND 0377
2872 04256 3330      DCA     OPE
2873 04257 1724      TAD I  FPADDR
2874 04260 2872      AND 07
2875 04261 3223      DCA     OP1
2876 04262 2324      ISZ     FPADDR
2877 04263 1724      TAD I  FPADDR
2878 04264 3222      DCA     OP2
2879 04265 2324      ISZ     FPADDR
2880 04266 1704      TAD I  FPADDR
2881 04267 3721      DCA     OP3
2882 04272 1273      FPNOADR, TAD   FPGOTO
2883 04271 1274      TAD     FPJUMP
2884 04272 3273      DCA     .+1
2885 04273 7402      FPGOTO, HLT
2886 04274 5674      FPJUMP, JMP I
2887 04275 4317      FPJMP
2888 04276 4322      FPSTO
2889 04277 4351      FPLAC
2890 04300 4456      FPADD
2891 04301 4453      FPSUB
2892 04302 4530      FPMLU
2893 04303 4667      FPOIV
2894 04304 0230      FPADDR, 0
2895 04325 1600      FPOPER, TAD I  FPT
2896 04326 6211      CDF     10          ***** 8 K INSERT.
2897 04307 7452      SNA
2898 04310 5602      JMP I  FPT
2899 04311 1345      TAD     07400
2900 04312 3314      DCA     FPSKIP
2901 04313 4333      JMS     HIGHWD
2902 04314 7402      FPSKIP, HLT
2903 04315 2220      ISZ     FPT
2904 04316 5223      JMP     FPLoop+1
2905 04317 1334      FPJMP, TAD   FPADDR
2906 04320 3222      DCA     FPT
2907 04321 5204      JMP     FPLoop+2
2908 04322 4333      FPSTO, JMS   HIGHWD
2909 04323 3784      DCA I  FPADDR

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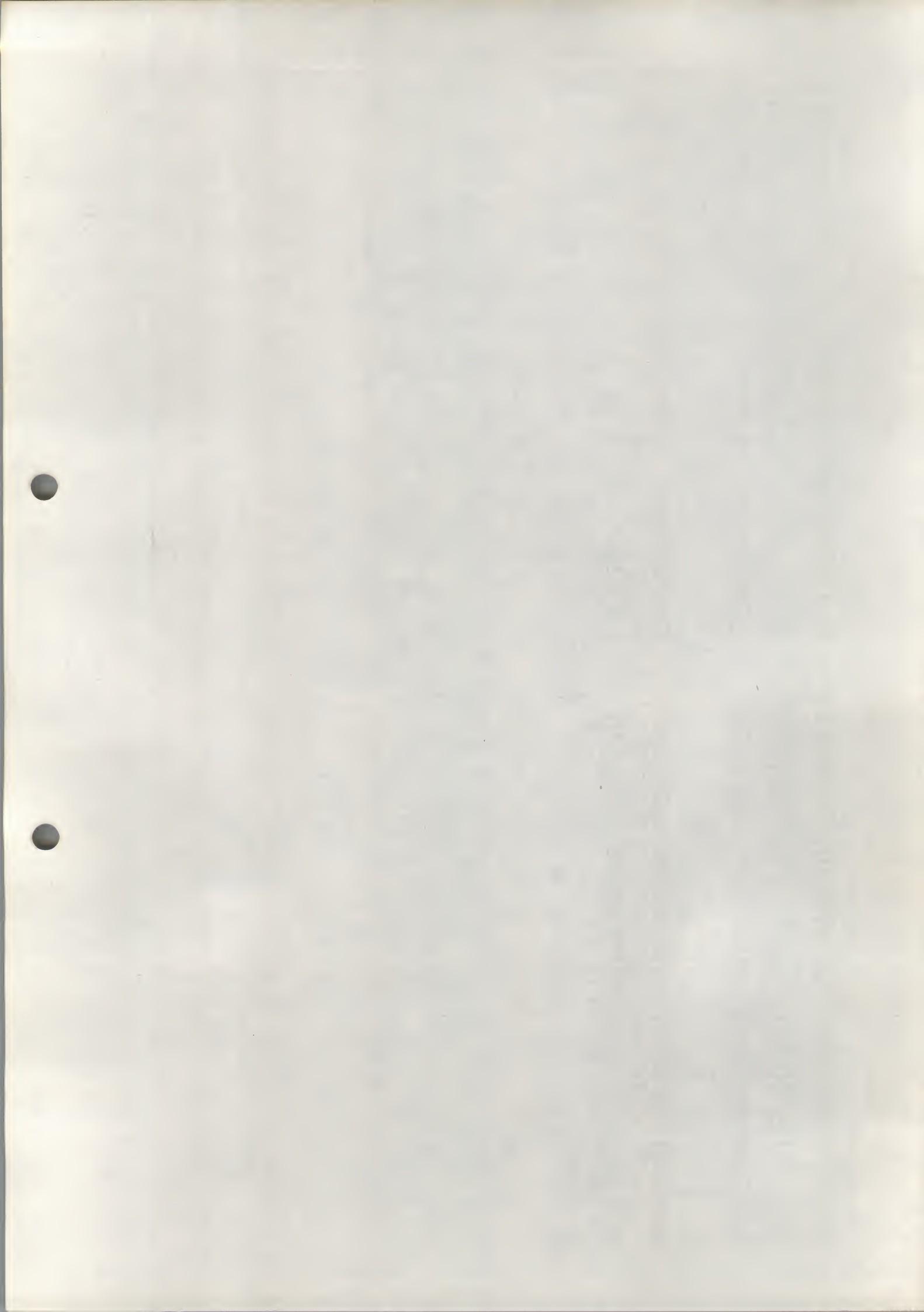
2910 04324 2304      ISZ     FPADDR
2911 04325 1217      TAD     AC2
2912 04326 3704      DCA I  FPADDR
2913 04327 2304      ISZ     FPADDR
2914 04332 1016      TAD     AC3
2915 04331 3704      DCA I  FPADDR
2916 04332 5203      JMP     FPLoop+1
2917 04333 0220      HIGHWD, 0
2918 04334 1225      TAD     ACE
2919 04335 7124      CLL RAL
2920 04336 7502      SMA

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2921 04337 7108 CLL RTL
 2922 04342 7330 SPC S2L
 2923 04341 5345 JMP 07680
 2924 04342 1374 TAD ACS
 2925 04343 1020 TAD AC1
 2926 04344 5733 JMP I HIGHWD
 2927 04345 7670 07682, 7682
 2928 04346 1271 TAD 0317
 2929 04347 3225 DCA ACE
 2930 04352 5334 JMP HIGHWD+1
 2931 04351 1008 FPLAC, TAD OPS
 2932 04352 3294 DCA ACS
 2933 04353 1032 TAD OPS
 2934 04354 3205 DCA ACE
 2935 04355 1021 TAD OPS
 2936 04356 3123 DCA AC1
 2937 04357 1022 TAD OPS
 2938 04358 3017 DCA AC2
 2939 04359 1021 TAD OPS
 2940 04362 3210 DCA AC3
 2941 04363 3212 DCA OV
 2942 04364 5222 JMP FPLTOP
 2943 04365 7041 UPARR2, CIA /(CMA) IF 1 ORG INDEXING
 2944 04366 3213 DCA INDEX1
 2945 04367 4435 FENTER
 2946 04370 3151 FL0 ONE
 2947 04371 0222 FEXIT
 2948 04372 5376 JMP .+4
 2949 04373 4435 FENTER
 2950 04374 6273 FMP OPERAND
 2951 04375 2200 FEXIT
 2952 04376 2213 ISZ INDEX1
 2953 04377 5373 JMP .+4
 2954 04402 5601 JMP I .+1
 2955 04401 1203 OPDONE
 2956
 2957
 2958
 2959
 2960
 2961 04402 0200 ARI, 0
 2962 04403 1020 TAD AC1
 2963 04404 7112 CLL RAR
 2964 04405 3020 DCA AC1
 2965 04406 1017 TAD AC2
 2966 04407 7010 RAR
 2967 04410 3217 DCA AC2
 2968 04411 1016 TAD AC3
 2969 04412 7010 RAR
 2970 04413 3215 DCA AC3
 2971 04414 7210 RAR
 2972 04415 3212 DCA OV
 2973 04416 5522 JMP I ARI
 2974 04417 2000 ACN, 0
 2975 04420 1234 TAD POP3

2976 04421 3235 DCA OADD
 2977 04422 7346 CLA CLL CMA RTL
 2978 04423 3222 DCA ARI
 2979 04424 7224 CML RAL
 2980 04425 1635 TAD I OADD
 2981 04426 7241 CIA
 2982 04427 3635 DCA I OADD
 2983 04430 2235 ISZ OADD
 2984 04431 2202 ISZ ARI
 2985 04432 5224 JMP .+6
 2986 04433 5617 JMP I ACN
 2987 04434 0201 POP3, OP3
 2988 04435 0000 OADD, 2
 2989 04436 7130 CLL
 2990 04437 1016 TAD AC3
 2991 04440 1021 TAD OP3
 2992 04441 3216 DCA AC3
 2993 04442 7004 RAL
 2994 04443 1017 TAD AC2
 2995 04444 1022 TAD OP2
 2996 04445 3217 DCA AC2
 2997 04446 7004 RAL
 2998 04447 1020 TAD AC1
 2999 04452 1023 TAD OP1
 3000 04451 3222 DCA AC1
 3001 04452 5635 JMP I OADD
 3002 04453 7332 FPSUB, CLA CLL CML RAR
 3003 04454 1026 TAD OPS
 3004 04455 3226 DCA OPS
 3005 04456 2156 FPADD, ISZ FPPFLAG
 3006 04457 5326 JMP EOFAD
 3007 04462 1025 TAD ACE
 3008 04461 7141 CLL CIA
 3009 04462 1030 TAD OPE
 3010 04463 7438 SZL
 3011 04464 5302 JMP BKWDOS
 3012 04465 3235 DCA O40D
 3013 04466 1023 ALGNLP, TAD OP1
 3014 04467 7110 CLL RAR
 3015 04472 3223 DCA OP1
 3016 04471 1022 TAD OP2
 3017 04472 7010 RAR
 3018 04473 3022 DCA OP2
 3019 04474 1021 TAD OP3
 3020 04475 7210 RAR
 3021 04476 3021 DCA OP3
 3022 04477 2235 ISZ OADD
 3023 04503 5266 JMP ALGNLP
 3024 04501 5312 JMP SETSGN
 3025 04502 7042 BKWDOS, CMA
 3026 04523 3235 DCA OADD
 3027 04504 1032 TAD OPE
 3028 04525 3025 DCA ACE
 3029 04536 7418 SKP
 3030 04507 4202 JMS ARI



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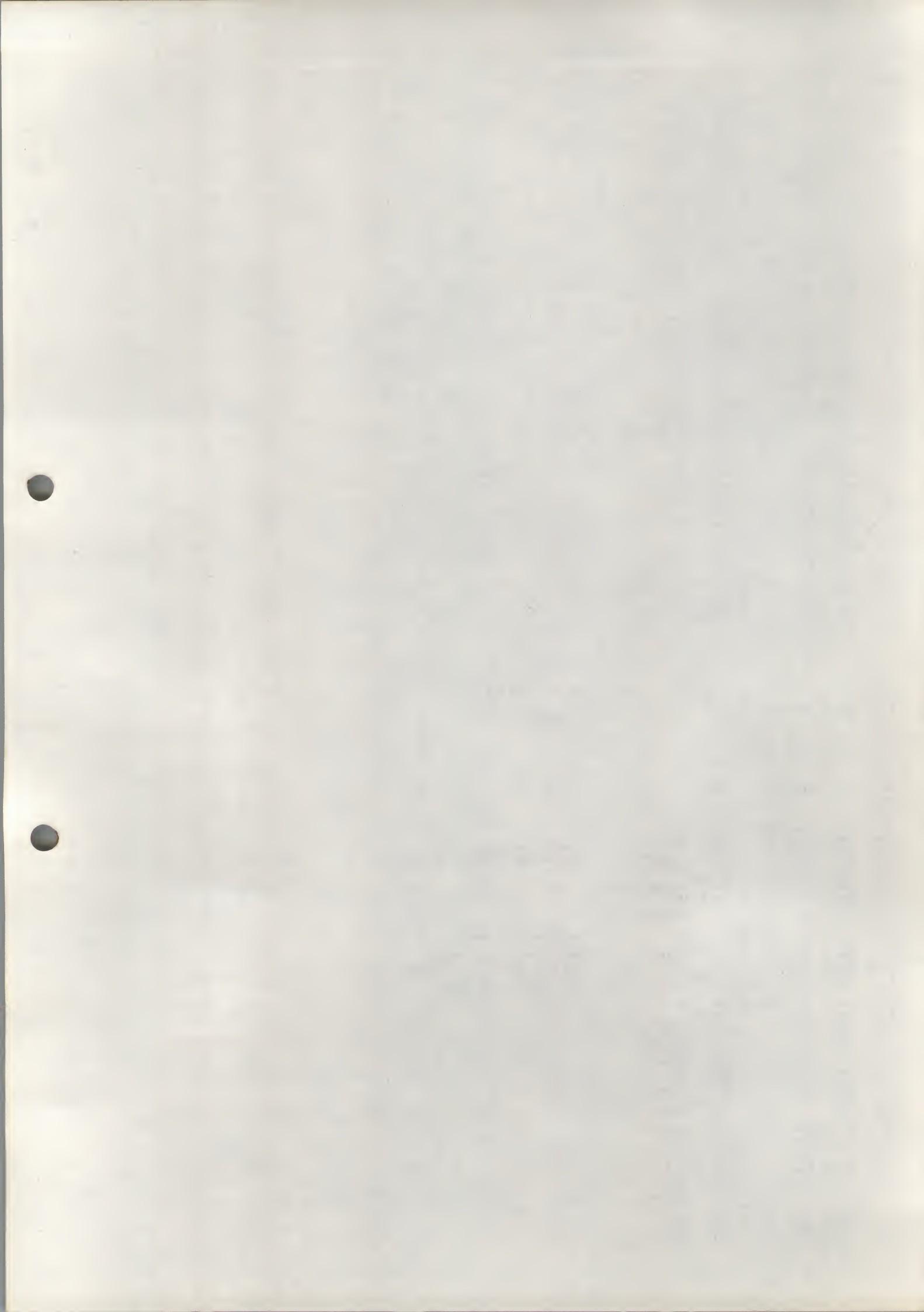
3031 04510 2235     ISZ     OADD
3032 04511 5307     JMP     .-2
3033 04512 1324     SETSGN, TAD    ACS
3034 04513 1026     TAD     OPS
3035 04514 7710     SPA CLA
3036 04515 4217     JMS     ACN
3037 04516 4235     JMS     OADD
3038 04517 1222     TAD     AC1
3039 04520 7702     SMA CLA
3040 04521 5326     JMP     EOFAD
3041 04522 7366     CLA CLL CMA RTL
3042 04523 4217     JMS     ACN
3043 04524 1225     TAD     OPS
3044 04525 3224     DCA     ACS
3045 04526 3212     ECFAD, DCA     OV
3046 04527 5775     JHP I   FFPLLOOP
3047 04530 2156     FPMUL, IAZ FFPLFLAG
3048 04531 5371     JHP     MULCLR
3049 04532 1024     TAD     ACS
3050 04533 1025     TAD     OPS
3051 04534 3224     DCA     ACS
3052 04535 1225     TAD     ACE
3053 04536 1225     TAD     OPE
3054 04537 1377     TAD     07577
3055 04540 3225     DCA     ACE
3056 04541 1220     TAD     AC1
3057 04542 3226     DCA     OPS
3058 04543 1017     TAD     AC2
3059 04544 3230     DCA     OPE
3060 04545 1016     TAD     AC3
3061 04546 3231     DCA     TMP
3062 04547 3220     DCA     AC1
3063 04550 1162     TAD     07745
3064 04551 3376     DCA     FPTEMP
3065 04552 4202     MPYLUP, JMS ARI
3066 04553 1025     TAD     OPS
3067 04554 7010     RAR
3068 04555 3226     DCA     OPS
3069 04556 1032     TAD     OPE
3070 04557 7010     RAR
3071 04560 3230     DCA     OPE
3072 04561 1031     TAD     TMP
3073 04562 7010     RAR
3074 04563 3231     DCA     TMP
3075 04564 7430     SZL
3076 04565 4235     JMS     OADD
3077 04566 2376     ISZ     FPTEMP
3078 04567 5352     JHP     MPYLUP
3079 04570 5775     JHP I   FFPLLOOP
3080 04571 7346     MULCLR, CLA CLL CMA RTL
3081 04572 3225     DCA     ACE
3082 04573 3220     DCA     AC1
3083 04574 5775     JHP I   FFPLLOOP
3084 04575 4222     FFPLLOOP, FPLOOP
3085 04576 0002     FPTEMP, 0

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3086 04577 7577 07577, 7577
3087
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3094 4600     PAGE
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3096
3097
3098 04600 0000 ANORM, 0
3099 04601 1020 TAD AC1
3100 04602 7450 SNA
3101 04603 5212 JMP HAYZERO /IS HIGH WORD ZERO?
3102 04604 1055 TAD 07770 /YEP, ENTIRE NUMBER MAY BE ZERO.
3103 04605 7710 SPA CLA
3104 04606 5220 JMP NOTBIG
3105 04607 0547 JMS I PARI
3106 04610 2025 ISZ ACE
3107 04611 5201 JMP ANORM+1
3108
3109 04612 1017 HAYZERO, TAD AC2 /IS SECOND WORD ZERO?
3110 04613 7640 SZA CLA
3111 04614 5220 JMP NOTBIG /NOPE, NORMAL NORMALIZE.
3112 04615 1016 TAD AC3 /1 & 2 ARE ZERO, IS THIRD WORD?
3113 04616 7450 SNA CLA
3114 04617 5245 JMP UNDERF /YEP, CLEAR AC, ALL ZERO.
3115
3116 04620 1012 NOTBIG, TAD OV
3117 04621 7650 SNA CLA
3118 04622 5233 JMP NOBUMP
3119 04623 2016 ISZ AC3
3120 04624 5233 JMP NOBUMP
3121 04625 2017 ISZ AC2
3122 04626 5233 JMP NOBUMP
3123 04627 2020 ISZ AC1
3124 04630 3012 DCA OV
3125 04631 5201 JMP ANORM+1
3126 04632 7240 CLA CMA
3127 04633 1025 NOBUMP, TAD ACE
3128 04634 7510 SPA
3129 04635 5245 JMP UNDERF
3130 04636 3225 DCA ACE
3131 04637 7346 CLA CLL CMA RTL
3132 04640 1020 TAD AC1
3133 04641 7740 SMA SZA CLA
3134 04642 5602 JMP I ANORM
3135 04643 4254 JMS AL1
3136 04644 5232 JMP NOBUMP+1
3137 04645 7200 UNDERF, CLA
3138 04646 3224 DCA ACS
3139 04647 3225 DCA ACE
3140 04650 3220 DCA AC1

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3141 24451 3217    DCA   AC2
3142 24452 3218    DCA   AC3
3143 24453 5600    JMP I  ANORM
3144 24454 6200    AL1,
3145 24455 1016    TAD   AC3
3146 24456 7104    CLL RAL
3147 24457 3216    DCA   AC3
3148 24458 1017    TAD   AC2
3149 24459 7204    RAL
3150 24460 3217    DCA   AC2
3151 24461 1020    TAD   AC1
3152 24462 7204    RAL
3153 24463 3220    DCA   AC1
3154 24464 5654    JMP I  AL1
3155 24465 6201    FPODIV, CDF 0
3156 24466 2158    ISZ   FPFLAG
3157 24467 5336    JMP FPZDIV
3158 24468 1024    TAD   AC5
3159 24469 1226    TAD   OPS
3160 24470 3024    DCA   ACS
3161 24471 1020    TAD   OPE
3162 24472 7241    CIA
3163 24473 1025    TAD   ACE
3164 24474 1227    TAD   0177
3165 24475 3225    DCA   ACE
3166 24476 3031    DCA   TMP
3167 24477 1343    TAD   07743
3168 24478 3220    DCA   ANORM
3169 24479 7330    DIVLP, CLA CLL CML RAR
3170 24480 0223    AND   OP1
3171 24481 1020    TAD   AC1
3172 24482 7702    SHA CLA
3173 24483 4742    JMS I  PACN
3174 24484 4557    JMS I  POADO
3175 24485 1031    TAD   TMP
3176 24486 7084    RAL
3177 24487 3031    DCA   TMP
3178 24488 1030    TAD   OPE
3179 24489 7084    RAL
3180 24490 3230    DCA   OPE
3181 24491 1026    TAD   OPS
3182 24492 7084    RAL
3183 24493 3226    DCA   OPS
3184 24494 4550    JMS I  PAL1
3185 24495 2220    ISZ   ANORM
3186 24496 5325    JMP DIVLP
3187 24497 1026    TAD   OPS
3188 24498 3220    DCA   AC1
3189 24499 1030    TAD   OPE
3190 24500 3017    DCA   AC2
3191 24501 1031    TAD   TMP
3192 24502 3016    DCA   AC3
3193 24503 5741    JMP I  PPFLLOOP
3194 24504 1071    FPZDIV, TAD 0377
3195 24505 3225    DCA   ACE

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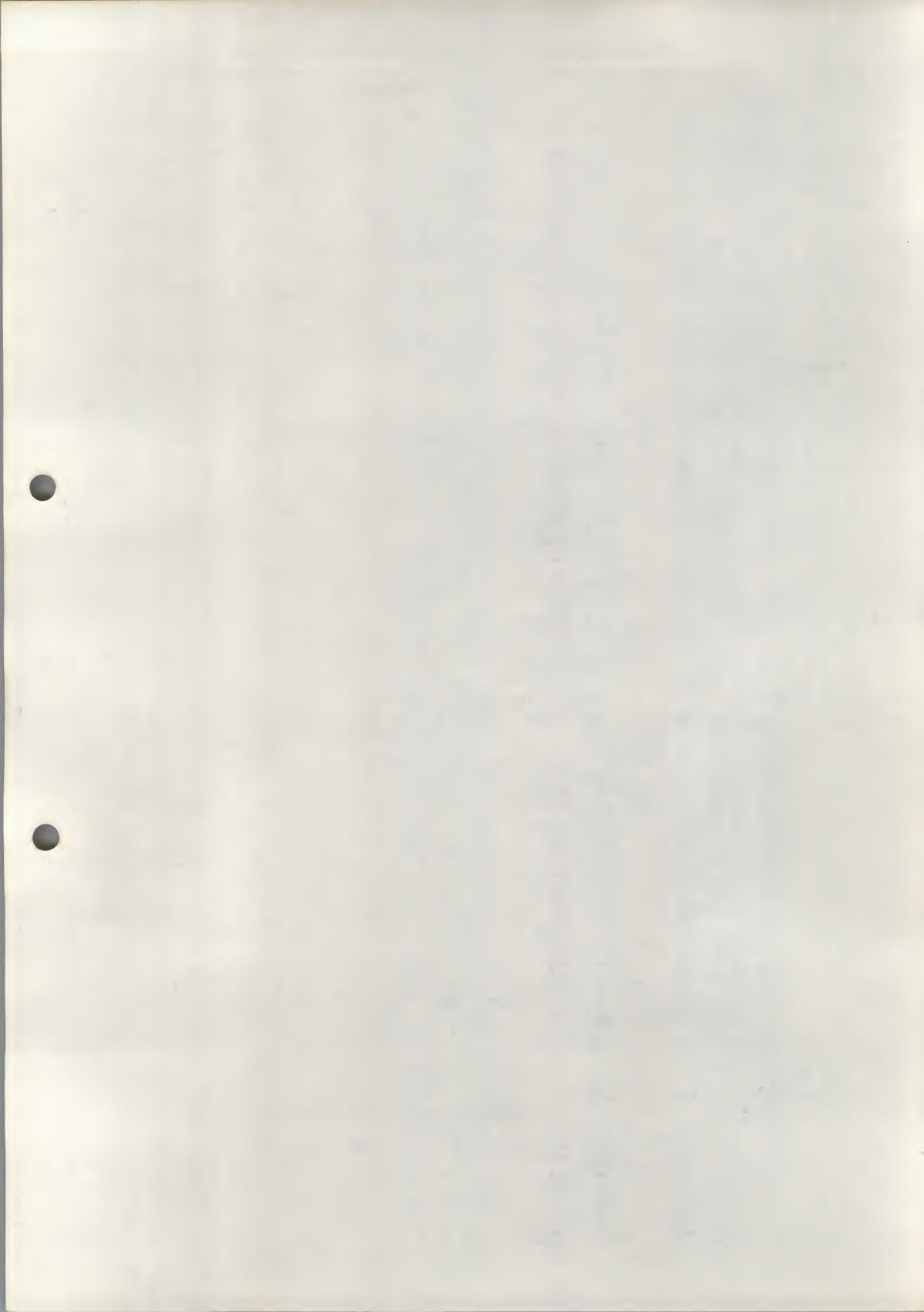
***** 8 K INSERT.

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3196 24740 5741    JMP I  PPFLLOOP
3197 24741 4202    PPFLLOOP, FPLOOP
3198 24742 4417    PACN, ACN
3199 24743 7743    07743, 7743
3200 24744 0030    FIX, 0
3201 24745 1020    TAD   AC1
3202 24746 7650    SNA CLA
3203 24747 5367    JMP ZFIXEX
3204 24748 1025    FIXLUP, TAD  ACE
3205 24749 1377    TAD   07545
3206 24750 7720    SMA CLA
3207 24751 5373    JMP FIXEXIT
3208 24752 4547    JMS I  PAR1
3209 24753 1024    TAD   ACS
3210 24754 0212    AND   OV
3211 24755 7640    SZA CLA
3212 24756 2016    ISZ   AC3
3213 24757 5365    JMP ,+4
3214 24758 2017    ISZ   AC2
3215 24759 5365    JMP ,+2
3216 24760 2220    ISZ   AC1
3217 24761 2225    ISZ   ACE
3218 24762 5350    JMP FIXLUP
3219 24763 3225    ZFIXEX, DCA  ACE
3220 24764 3220    DCA   AC1
3221 24765 3017    DCA   AC2
3222 24766 3016    DCA   AC3
3223 24767 3012    FIXEXIT,DCA  OV
3224 24768 1016    TAD   AC3
3225 24769 7001    SSFIX, IAC
3226 24770 5740    JMP I  FIX
3227 24771 7545    07545, 7545  /(NOP) IF, 1 ORG INDEXING
3228
3229
3230
3231
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3234
3235 5220    PAGE
3236
3237
3238
3239 25000 8000    OUTNUM, 0
3240 25001 6201    CDF 0
3241 25002 1024    TAD   ACS
3242 25003 7720    SMA CLA
3243 25004 5207    JMP ,+3
3244 25005 1351    TAD   0255
3245 25006 4433    JMS I  PPUTCH
3246 25007 1020    TAD   AC1
3247 25008 7640    SZA CLA
3248 25009 5216    JMP NONZERO
3249 25010 1011    TAD   0260
3250 25011 4433    JMS I  PPUTCH

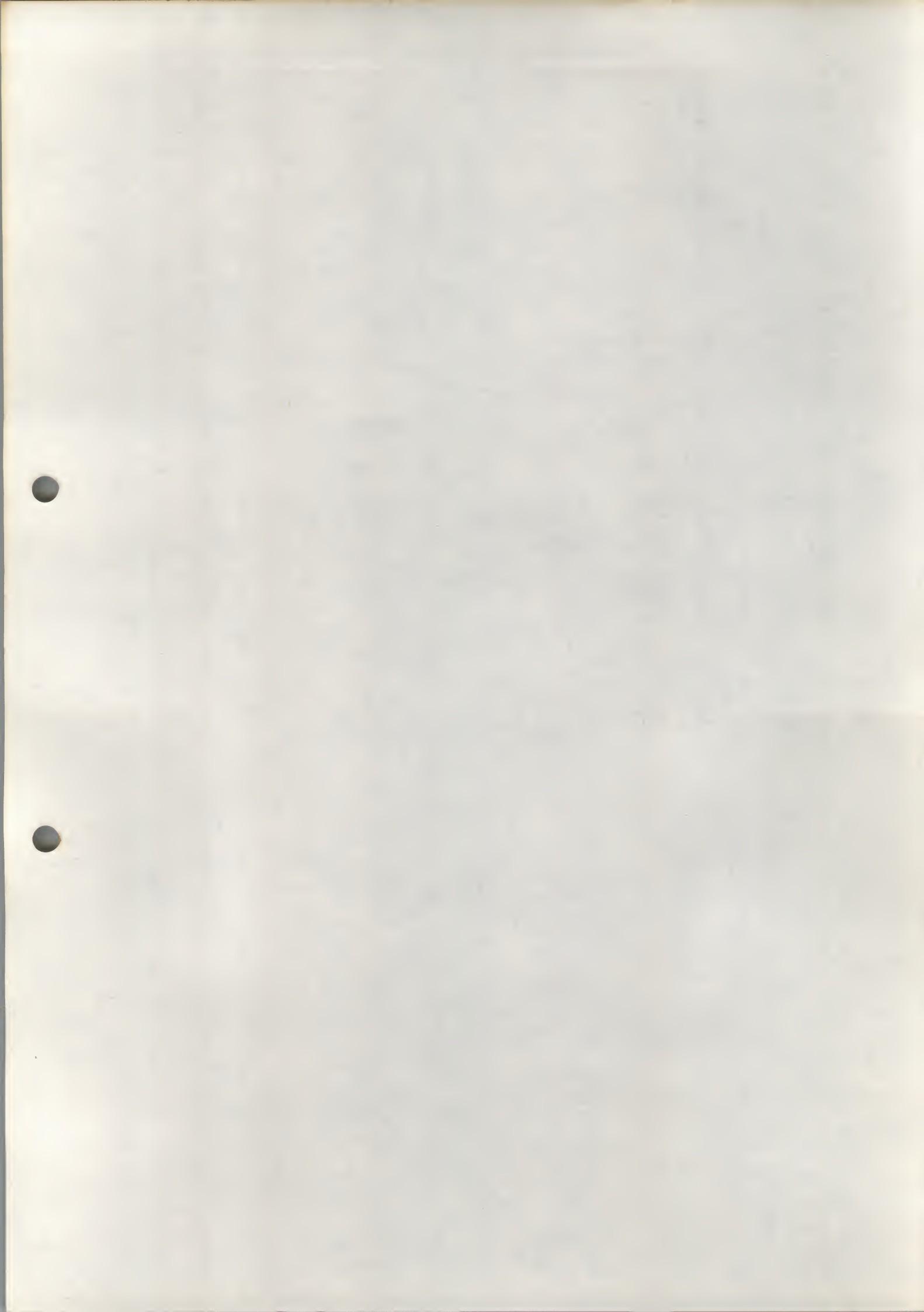
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***** 8 K INSERT.



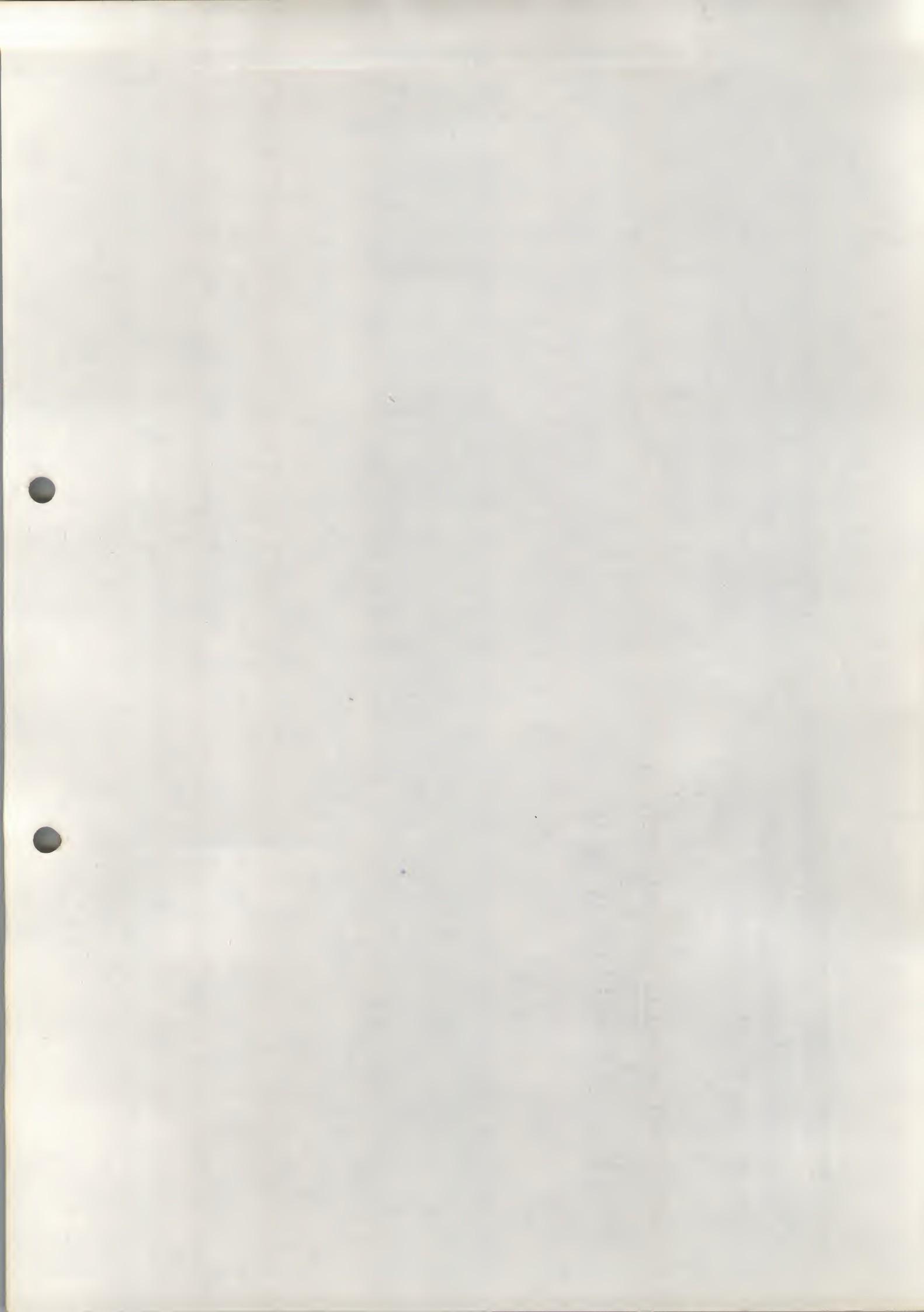
3251 05014 6211 CDF 10 ***** 8 K INSERT.
 3252 05015 5800 JMP I OUTNUM
 3253 05016 4706 NONZERO,JMS I FIXUP
 3254 05017 1355 TAD 07771
 3255 05020 3242 DCA PTEMP
 3256 05021 1244 TAD PNMBUF
 3257 05022 3225 DCA ACE
 3258 05023 5230 JMP .+5
 3259 05024 1828 CVTLCOP,TAD AC1
 3260 05025 2227 AND 0177
 3261 05026 3228 DCA AC1
 3262 05027 4782 JMS I PHPY
 3263 05030 1220 TAD AC1
 3264 05031 7206 RTL
 3265 05032 7205 RTL
 3266 05033 7205 RTL
 3267 05034 2347 AND 017
 3268 05035 1211 TAD 0260
 3269 05036 3225 DCA I ACE
 3270 05037 2225 ISZ ACE
 3271 05047 2242 ISZ PRTEHP
 3272 05041 5224 JMP CVTLCOP
 3273 05042 7326 CLA CLL CML RTL
 3274 05043 1843 TAD DECEXP
 3275 05044 7450 SNA
 3276 05045 5325 JMP FMT1 /,NNNNNNNN
 3277 05046 7510 SPA
 3278 05047 5253 JMP FMT2 /N,NNNNNN=NN
 3279 05050 1055 TAD 07770
 3280 05051 7710 SPA CLA
 3281 05052 5330 JMP FMT3 /OTHER THAN N,NNNNNNNE>NN
 3282 05053 7202 FMT2, CLA /N,NNNNNNNE>NN
 3283 05054 1244 TAD PNMBUF
 3284 05055 3025 DCA ACE
 3285 05056 1557 TAD 07772
 3286 05057 3242 DCA PRTEHP
 3287 05060 1425 TAD I ACE
 3288 05061 4433 JMS I PPUTCH
 3289 05062 1356 TAD 0256A
 3290 05063 4433 JMS I PPUTCH
 3291 05064 2225 ISZ ACE
 3292 05065 1425 TAD I ACE
 3293 05066 4433 JMS I PPUTCH
 3294 05067 2242 ISZ PRTEHP
 3295 05070 5264 JMP .+4
 3296 05071 1352 TAD 0305
 3297 05072 4433 JMS I PPUTCH
 3298 05073 1243 TAD DECEXP
 3299 05074 7710 SPA CLA
 3300 05075 7326 CLA CLL CML RTL
 3301 05076 1350 TAD 0253
 3302 05077 4433 JMS I PPUTCH
 3303 05100 3225 DCA ACE
 3304 05101 1043 TAD DECEXP
 3305 05102 7510 SPA

3306 05123 7841 CIA	DCA DECEXP
3307 05124 3043 DCA	DECEXP
3308 05105 1043 TAD	DECEXP



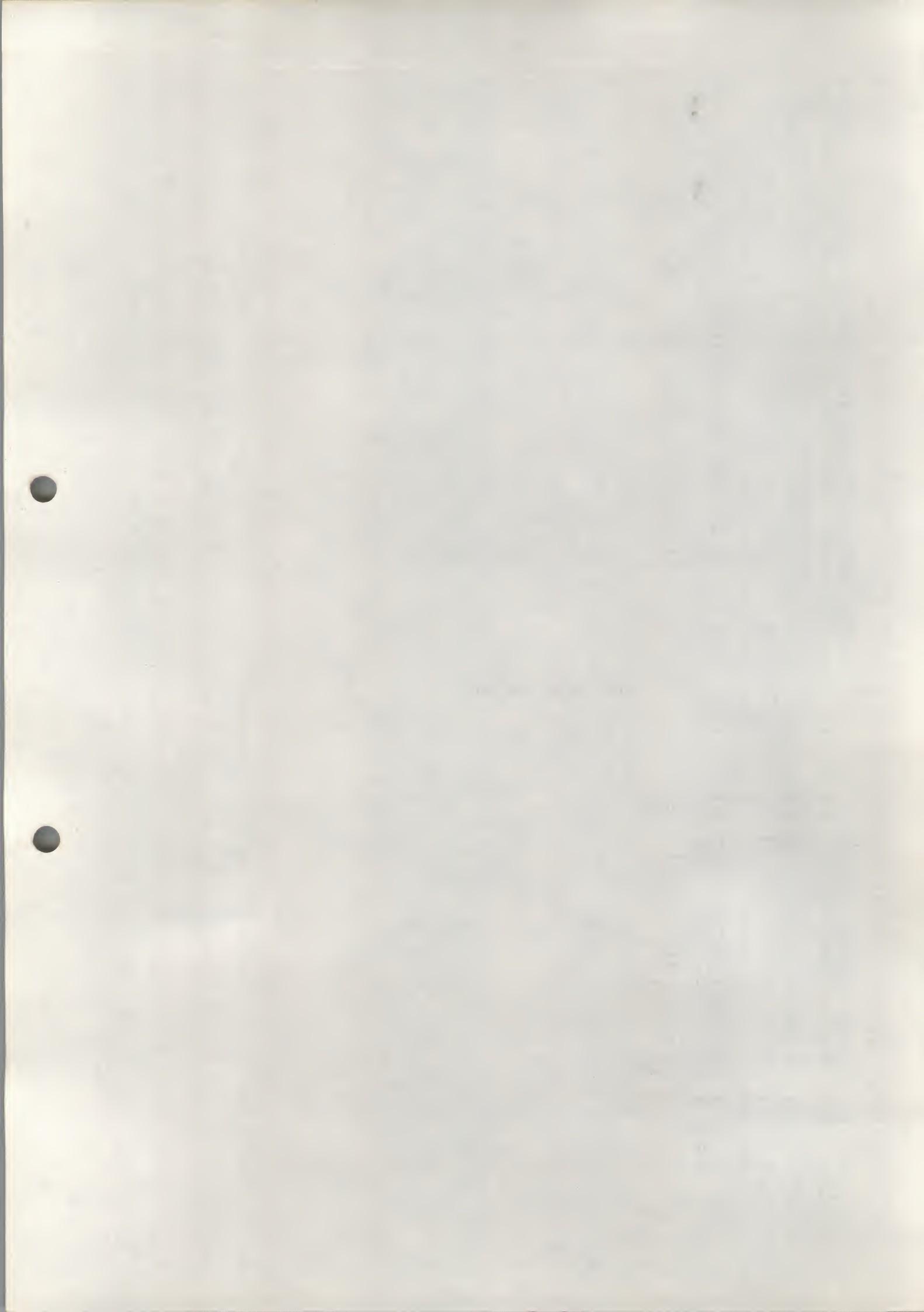
3309 05186 1354 TAD 07766
 3310 05187 7510 SPA
 3311 05110 5314 JMP .+4
 3312 05111 3243 DCA DECEXP
 3313 05112 2025 ISZ ACE
 3314 05115 5305 JMP .+5
 3315 05116 7200 CLA
 3316 05115 1025 TAD ACE
 3317 05116 1011 TAD 0268
 3318 05117 4433 JHS I PPUTCH
 3319 05123 1013 TAD DECEXP
 3320 05121 5911 TAD 0260
 3321 05120 4833 JHS I PPUTCH
 3322 05120 6213 FMTENF, CDF 12 //***** 8 K INSERT.
 3323 05120 5620 JMP I OUTNUM
 3324 05123 6514 FNT1, JMS I PPRINTXT
 3325 05126 7371 DOTZERO
 3326 05127 6201 CDF 0
 3327 05130 1345 FMT3, TAD 07771 //***** 8 K INSERT.
 3328 05131 3042 DCA PRTEMP
 3329 05132 1361 TAD PNBF6
 3330 05133 3225 TRYAGIN, CMA ACE
 3331 05134 1425 TAD I ACE
 3332 05135 1553 TAD 07520
 3333 05136 7642 SZA CLA
 3334 05137 5344 JMP ZERDONE
 3335 05140 2842 ISZ PRTEMP
 3336 05141 7240 CLA CMA
 3337 05142 1025 TAD ACE
 3338 05143 5333 JMP TRYAGIN
 3339 05144 5745 ZERDONE, JMP I .+1 //***** 8 K INSERT.
 3340 05145 6545 PZERDONE //***** 8 K INSERT.
 3341 05146 5200 FIXUP, FIXITUP
 3342 05147 2017 017, 17
 3343 05150 2253 0253, 253
 3344 05151 2255 0255, 255
 3345 05152 0305 0305, 305
 3346 05153 7520 07520, 7520
 3347 05154 7766 07766, 7766
 3348 05155 7771 07771, 7771
 3349 05156 0256 0256A, 256
 3350 05157 7772 07772, 7772
 3351 05160 5321 MPY, MPY
 3352 05161 5343 PNBF6, NUMBUF+6
 3353
 3354
 3355 05162 3714 TOOLONG, TEXT "LINE TOO LONG"
 3356 05163 1116
 3357 05164 0540
 3358 05165 2417
 3359 05166 1740
 3360 05167 1417
 3361 05170 1607
 3362 05171 3720
 3365

3364
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 3369
 3370 5200 PAGE
 3371
 3372
 3373 05220 0200 FIXITUP, 0
 3374 05221 1025 TAD ACE
 3375 05222 1345 TAD 07610
 3376 05223 3025 DCA ACE
 3377 05224 7410 SKP
 3378 05225 1023 OCC, TAD DECEXP
 3379 05226 3043 DCA DECEXP
 3380 05227 1020 NORMIT, TAD AC1
 3381 05210 7206 RTL
 3382 05211 7632 SZA CLA
 3383 05212 5220 JMP NORMED
 3384 05213 4550 JHS I PAL1
 3385 05214 7240 CLA CMA
 3386 05215 1025 TAD ACE
 3387 05216 3225 DCA ACE
 3388 05217 5207 JMP NORMIT
 3389 05220 1025 NORMED, TAD ACE
 3390 05221 7540 SMA SZA
 3391 05222 5236 JMP NOTX10
 3392 05223 7220 CLA
 3393 05224 4547 JMS I PARI
 3394 05225 4547 JMS I PARI
 3395 05226 4547 JMS I PARI
 3396 05227 4547 JMS I PARI
 3397 05230 4321 JMS MPY
 3398 05231 1025 TAD ACE
 3399 05232 1160 TAD 04
 3400 05233 3225 DCA ACE
 3401 05234 7240 CLA CMA
 3402 05235 5205 JMP OCC
 3403 05236 1346 NOTX10, TAD 07773
 3404 05237 7512 SPA
 3405 05242 5265 JMP EXPCK
 3406 05241 7202 CLA
 3407 05242 1054 EXPGOOD, TAD 07740
 3408 05243 3321 DCA MPY
 3409 05244 7100 CLL
 3410 05245 1020 DVLOOP, TAD AC1
 3411 05246 1347 TAD 05400
 3412 05247 7500 SMA
 3413 05250 3020 DCA AC1
 3414 05251 7264 CLA CML CMA RAL
 3415 05252 3023 DCA OP1
 3416 05253 0550 JMS I PAL1
 3417 05254 2023 ISZ OP1
 3418 05255 2016 ISZ AC3



3419 05256 2321 ISZ MPY
 3420 05257 5245 JMP DVLOOP
 3421 05260 1220 TAD AC1
 3422 05261 0071 AND 0377
 3423 05262 3223 DCA AC1
 3424 05263 7221 CLA IAC
 3425 05264 5225 JMP OCC
 3426 05265 3242 EXPOK, DCA PRTEMP
 3427 05266 7410 SKP
 3428 05267 4547 JMS I PAR1
 3429 05270 2222 ISZ PRTEMP
 3430 05271 5267 JMP .=2
 3431 05272 1220 TAD AC1
 3432 05273 1347 TAD 05420
 3433 05274 7720 SMA CLA
 3434 05275 5242 JMP EXPGOOD
 3435 05276 7320 CLA CLL
 3436 05277 1216 TAD AC3
 3437 05322 1344 TAD 02062
 3438 05321 3216 DCA AC3
 3439 05322 7432 S2L
 3440 05323 2017 ISZ AC2
 3441 05324 7416 SKP
 3442 05325 2228 ISZ AC1
 3443 05326 1220 TAD AC1
 3444 05327 1347 TAD 05420
 3445 05328 7620 S2A CLA
 3446 05329 5620 JMP I FIXITUP
 3447 05332 1155 TAD 0220
 3448 05333 3223 DCA AC1
 3449 05334 3017 DCA AC2
 3450 05335 3016 DCA AC3
 3451 05336 2243 ISZ DECEXP
 3452 05337 7220 NOP
 3453 05320 5620 JMP I FIXITUP
 3454 05321 0000 0
 3455 05322 4550 JMS-I PAL1
 3456 05323 1020 TAD AC1
 3457 05324 3223 DCA OP1
 3458 05325 1217 TAD AC2
 3459 05326 3222 CCA OP2
 3460 05327 1216 TAD AC3
 3461 05332 3221 DCA OP3
 3462 05331 4550 JMS I PAL1
 3463 05332 4550 JMS I PAL1
 3464 05333 4557 JMS I POADD
 3465 05334 5721 JMP I MPY
 3466 05335 2222 NUMBUF, 0101010101010
 3467 05336 0220
 3468 05337 0220
 3469 05340 0220
 3470 05341 0220
 3471 05342 0220
 3472 05343 0220
 3473 05344 2062 02062, 2062

3474 05345 7610 07610, 7610
 3475 05346 7773 07773, 7773
 3476 05347 5400 05400, 5400
 3477
 3478
 3479
 3480
 3481
 3482
 3483 05350 0200 RNDJMP, FEXIT
 3484 05351 4546 JMS I PANORM
 3485 05352 5753 JMP I RND
 3486
 3487 05353 2002 RND, 0
 3488 05354 4435 FENTER
 3489 05355 3227 FLD+FWD+FRNDX=,
 3490 05356 0300 FEINIT
 3491 05357 1221 TAD OP3
 3492 05360 7026 RTL
 3493 05361 7226 RTL
 3494 05362 7026 RTL
 3495 05363 3222 DCA AC1
 3496 05364 1220 TAD AC1
 3497 05365 7010 RAR
 3498 05366 0254 AND 07740
 3499 05367 3017 DCA AC2
 3500 05370 3216 DCA AC3
 3501 05371 4557 JMS I POADD
 3502 05372 4557 JMS I POADD
 3503 05373 4557 JMS I POADD
 3504 05374 1030 TAD OPE
 3505 05375 3025 DCA ACE
 3506 05376 1020 TAD AC1
 3527 05377 0272 AND 07
 3508 05400 3220 DCA AC1
 3509 05401 4435 FENTER
 3510 05402 2222 FST+FWD+FRNDX=,
 3511 05403 1633 FJMP+BKWD=,=RNDJMP
 3512
 3513
 3514 05404 2204 FRNDX, 2004/4173/1231
 3515 05405 4173
 3516 05406 1231
 3517
 3518
 3519
 3520
 3521 05407 2020 FSORX, 01010
 3522 05410 2220
 3523 05411 0220
 3524 05412 2020 SOR, 0
 3525 05413 4435 FENTER
 3526 05414 2273 FST OPERAND
 3527 05415 0240 FSNE
 3528 05416 1232 FJMP+FWD+SGEXIT=



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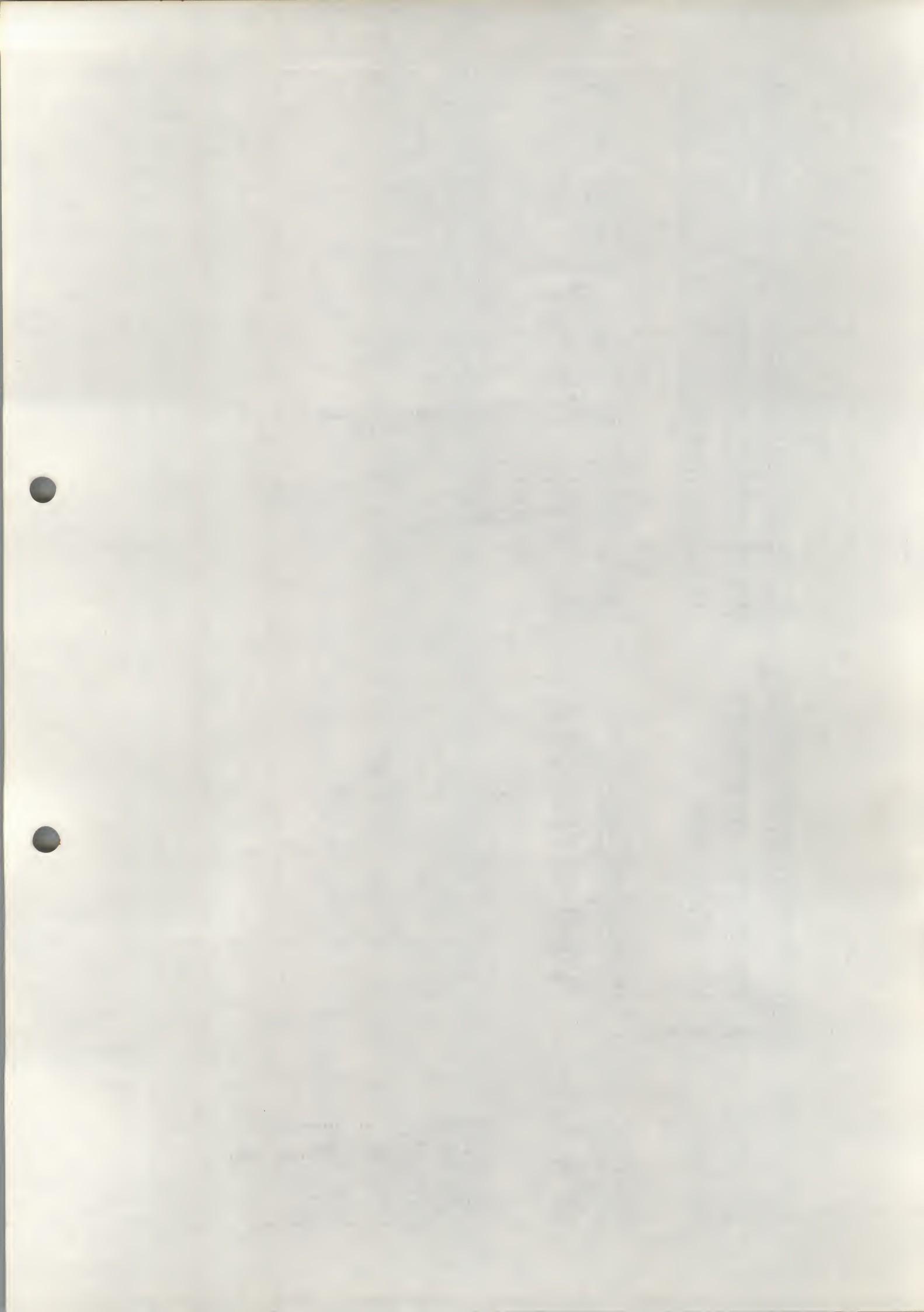
3529 05417 0000      FEXIT
3530 05420 1024      TAD    ACS
3531 05421 7710      SPA CLA
3532 05422 5407      JMP I  PARSERR
3533 05423 1025      TAD    ACE
3534 05424 1252      TAD    007600
3535 05425 7100      CLL
3536 05426 7510      SPA
3537 05427 7220      CML
3538 05428 7310      RAR
3539 05429 1155      TAD    0220
3540 05430 3025      DCA    ACE
3541 05431 1055      TAD    07710
3542 05432 3213      DCA    INDEX1
3543 05433 2435      SOLLOOP, FENTER
3544 05434 2527      FDY+BKWD+,=FSQRX
3545 05435 3073      FLD    OPERAND
3546 05436 7631      FDY+BKWD+,=FSQRX
3547 05437 4632      FAD+BKWD+,=FSQRX
3548 05438 0000      FEXIT
3549 05439 7220      CLA CMA
3550 05440 1025      TAD    ACE
3551 05441 3225      DCA    ACE
3552 05442 2813      ISZ    INDEX1
3553 05443 5235      JMP    SOLLOOP
3554 05450 2000      SQEXIT, FEXIT
3555 05451 5612      JMP I  SCR
3556 05452 7600      007600, 7600
3557 05453 0220      FN,   0
3558 05454 1045      TAD    LOCCTR
3559 05455 4524      JMS I  PPUSH
3560 05456 1050      TAD    WORD
3561 05457 4504      JMS I  PPUSH
3562 05458 6201      CDF    0
3563 05461 1745      TAD I  PUSERFN
3564 05462 6211      CDF    10
3565 05463 7021      IAC
3566 05464 3045      DCA    LOCCTR
3567 05465 4567      GET+ISIT  /*DEF*
3568 05466 1761      1761
3569 05467 5746      JMP I  PFNERR /NO
3570 05470 4177      JMS GETWD /SKIP "FN"
3571 05471 4177      JMS GETWD /SKIP LETTER
3572 05472 4177      JMS GETWD /SKIP "("
3573 05473 4567      GET+ISIT /A VARIABLE
3574 05474 7000      7000
3575 05475 5746      JMP I  PFNERR /NO
3576 05476 2050      ISZ    WORD
3577 05477 1450      TAD I  WORD
3578 05500 3013      DCA    INDEX1
3579 05501 1413      TAD I  INDEX1
3580 05502 4504      JMS I  PPUSH
3581 05503 1413      TAD I  INDEX1
3582 05504 4504      JMS I  PPUSH
3583 05505 1413      TAD I  INDEX1

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3584 05506 4504      JMS I  PPUSH
3585 05507 1013      TAD    INDEX1
3586 05510 4504      JMS I  PPUSH
3587 05511 7344      CLA CLL CMA RAL
3588 05512 1013      TAD    INDEX1
3589 05513 3013      DCA    INDEX1
3590 05514 4435      FENTER
3591 05515 2413      FSTI    INDEX1
3592 05516 0000      FEXIT
3593 05517 4177      JMS GETWD /SKIP ")"
3594 05520 4177      JMS GETWD /SKIP ","
3595 05521 4501      JMS I  PEVAL
3596 05522 4505      JMS I  PPOP
3597 05523 3250      DCA    WORD
3598 05524 4505      JMS I  PPOP
3599 05525 3450      DCA I  WORD
3600 05526 7240      CLA CMA
3601 05527 1050      TAD    WORD
3602 05530 3050      DCA    WORD
3603 05531 4505      JMS I  PPOP
3604 05532 3450      DCA I  WORD
3605 05533 7240      CLA CMA
3606 05534 1050      TAD    WORD
3607 05535 3050      DCA    WORD
3608 05536 4505      JMS I  PPOP
3609 05537 3450      DCA I  WORD
3610 05540 4505      JMS I  PPOP
3611 05541 3250      DCA    WORD
3612 05542 4505      JMS I  PPOP
3613 05543 3045      DCA    LOCCTR
3614 05544 5653      JMP I  FN
3615 05545 1620      PUSERFN,USERFN
3616
3617
3618
3619 05546 0352      PFNERR, FNERR
3620
3621
3622
3623
3624
3625
3626
3627
3628 05547 0020 TAB, 0      /FUNCTION "TAB" IN PRINT STATEMENT.
3629 05550 4506      JMS I  PFIX   /FIX THE FAC NOW.
3630 05551 6201      CDF    0      /SET DATA FIELD TO FIELD ZERO.
3631 05552 7201      CLA IAC   /SET FLAG TO INDICATE WE'VE DONE THIS FUNCTION.
3632 05553 3771      DCA I  PTABFLG /AND STORE AWAY.
3633 05554 1024      TAD    ACS   /GET SIGN OF FAC
3634 05555 7650      SNA CLA   /WAS IT A POSITIVE NUMBER?
3635 05556 1816      TAD    AC3   /YEP, PICK UP DESIRED POSITION.
3636 05557 0071      AND    0377 /MAXIMUM OF 256 COLUMNS.
3637 05560 3770      DCA I  PTABDOS /SAVE AWAY FOR ACTUAL SPACER TO USE.
3638 05561 4772      JMS I  TBEGFIX /PREPARE TO RETURN PRESENT COLUMN NUMBER.

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3639 05562 7201     CLA IAC
3640 05563 1126     TAD   COLUMN
3641 05564 3216     DCA   ACS
3642 05565 6211     CDF   10
3643 05566 0546     JMS I PANORM
3644 05567 5747     JMP I TAB
                                         /INCREMENT TO ACCOUNT FOR DIFFERENCES.
                                         /AND STORE AWAY,
                                         /RESET DATA FIELD NOW,
                                         /NORMALIZE AC NOW,
                                         /AND RETURN NOW.

3646
3647 25570 6367     PTABDES,TABDES
3648 25571 2345     PTABFLG,TABFLG
3649 25572 3762     TBEGFIX,BEGFIX
                                         /POINTER TO DESIRED LOCATION OF PRINT HEAD,
                                         /POINTER TO TAB IN PRINT FLAG,
                                         /POINTER TO MINI-FIX-SET-UP ROUTINE.

3650
3651
3652
3653
3654
3655
3656
3657
3658 25573 7201     RUBO,   CLA IAC
3659 05574 3135     NORUBO,  DCA   RBSNCH
3660 05575 5776     JMP I .+1
3661 05576 7175     DEVCOM
                                         /SET RUBOUT SWITCH,
                                         /AND CLEAN IT UP,
                                         /CLEAN-UP POINTER.

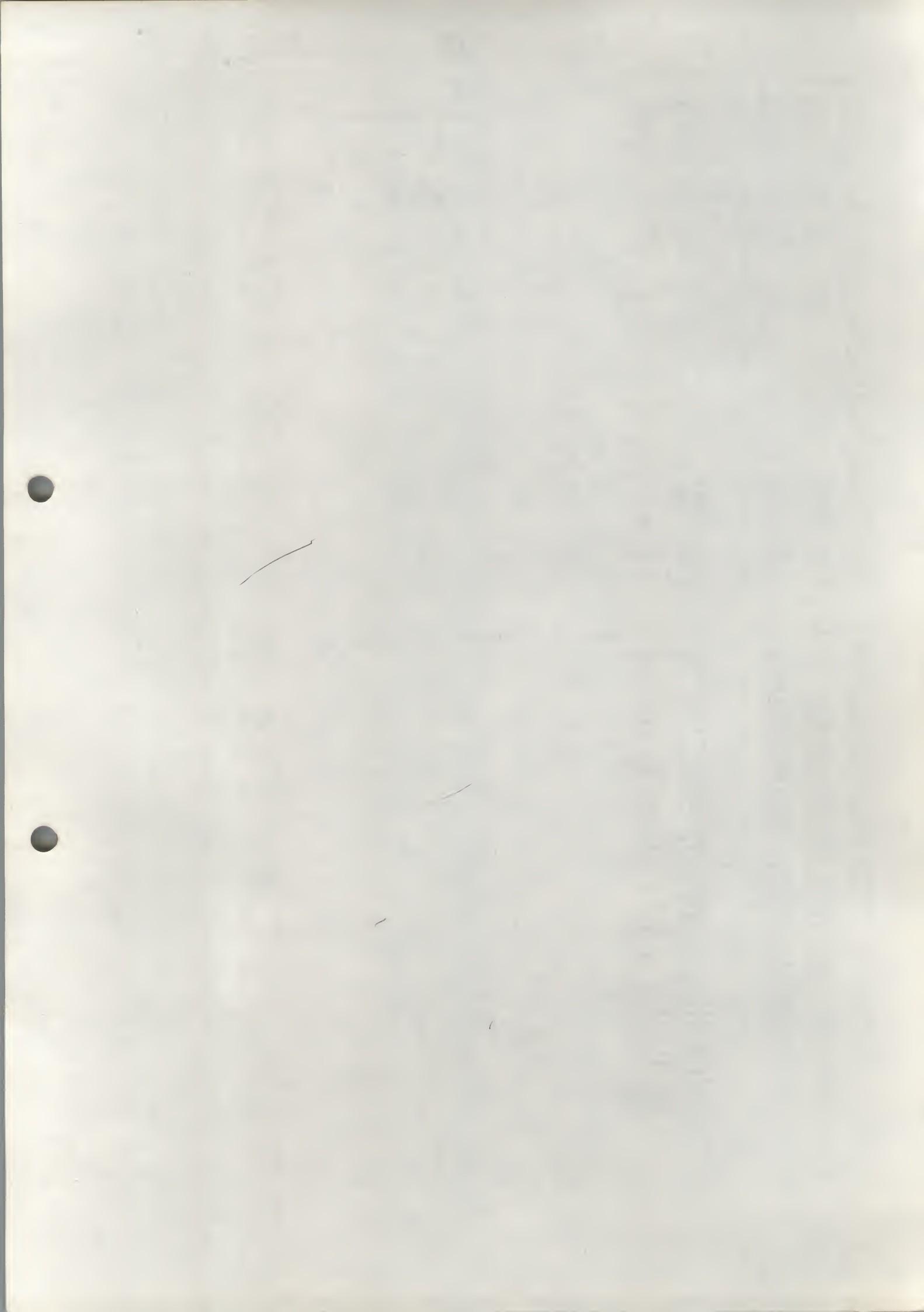
3662
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3670
3671
3672      5600     PAGE
3673
3674
3675
3676
3677
3678 05600 0200     TAN,    0
3679 05601 0435     FENTER
3680 25622 2275     FST+FWD+FTANT1=,
3681 05603 0200     FEXIT
3682 05604 4216     JMS   COS
3683 25605 4435     FENTER
3684 25626 2274     FST+FWD+FTANT2=,
3685 05627 3270     FLD+FWD+FTANT1=,
3686 05610 0200     FEXIT
3687 05611 4224     JMS   SIN
3688 05612 4435     FENTER

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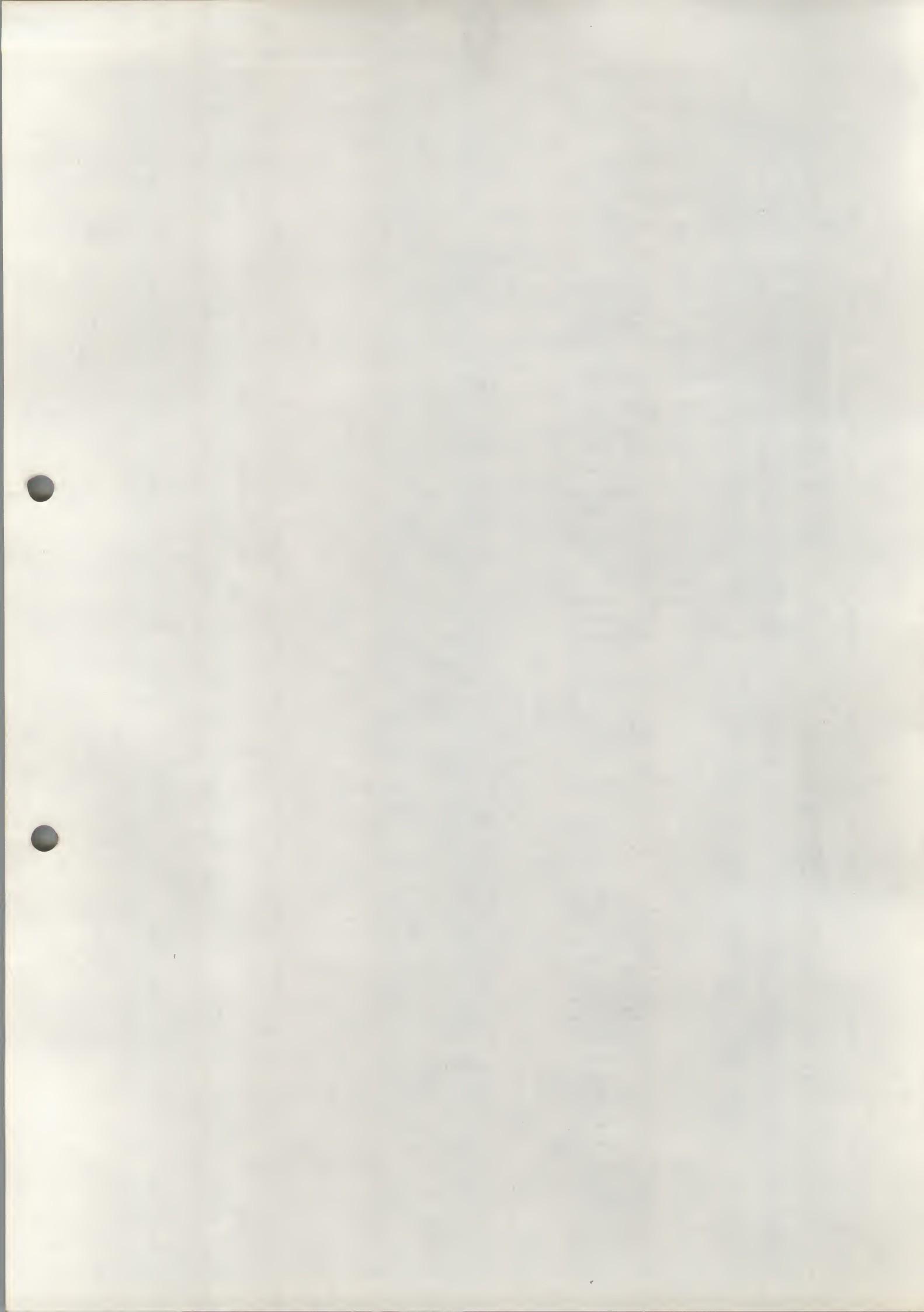
3689 05613 7267     FDV+FWD+FTANT2=,
3690 05614 0200     FEXIT
3691 05615 5600     JMP I TAN
3692 05616 0200     COS,
3693 05617 4435     FENTER
3694 05620 4312     FAD+FWD+FSINC7=,
3695 05621 0200     FEXIT
3696 25622 4224     JMS   SIN
3697 05623 5616     JMP I COS
3698 05624 0200     SIN,
3699 05625 4435     FENTER
3700 25626 7265     FDV+FWD+FSINC1=,
3701 05627 2256     FST+FWD+FSINZ=,
3702 25632 0200     FEXIT
3703 05631 3024     DCA   ACS
3704 05632 4676     JMS I PINT
3705 25633 7330     CLA CLL CML RAR
3706 05634 0305     AND   FSINZ
3707 25635 3024     DCA   ACS
3708 05636 4435     FENTER
3709 25637 5246     FSB+FWD+FSINZ=,
3710 05640 6275     FMP+FWD+FSINM4=,
3711 05641 2244     FSIN10, FST+FWD+FSINZ=,
3712 05642 0200     FEXIT
3713 05643 3024     DCA   ACS
3714 05644 4435     FENTER
3715 25645 5151     FSB   ONE
3716 05646 2140     FSGT
3717 05647 1210     FJMP+FWD+FSINOK=,
3718 05650 3235     FLD+FWD+FSINZ=,
3719 05651 0200     FEXIT
3720 05652 4675     JMS I PSGN
3721 05653 2025     ISZ   ACE
3722 05654 4435     FENTER
3723 25655 5230     FSB+FWD+FSINZ=,
3724 05656 1615     FJMP+BKD0,-,FSIN10
3725 25657 3226     FSINOK, FLD+FWD+FSINZ=,
3726 05660 6225     FMP+FWD+FSINZ=,
3727 25661 2227     FST+FWD+FSINZ=,
3728 05662 6234     FMP+FWD+FSINC3=,
3729 25663 4236     FAD+FWD+FSINC4=,
3730 05664 6224     FMP+FWD+FSINZ=,
3731 05665 4237     FAD+FWD+FSINC5=,
3732 05666 6222     FMP+FWD+FSINZ=,
3733 05667 4240     FAD+FWD+FSINC6=,
3734 25672 6222     FMP+FWD+FSINZ=,
3735 05671 4241     FAD+FWD+FSINC7=,
3736 25672 6213     FMP+FWD+FSINZ=,
3737 05673 0200     FEXIT
3738 05674 5624     JMP I SIN
3739 25675 2726     PSGN,   SGN
3740 25676 6434     PINT,   INT
3741 05677 0200     FTANT1, 01010
3742 05702 0200
3743 05721 0200

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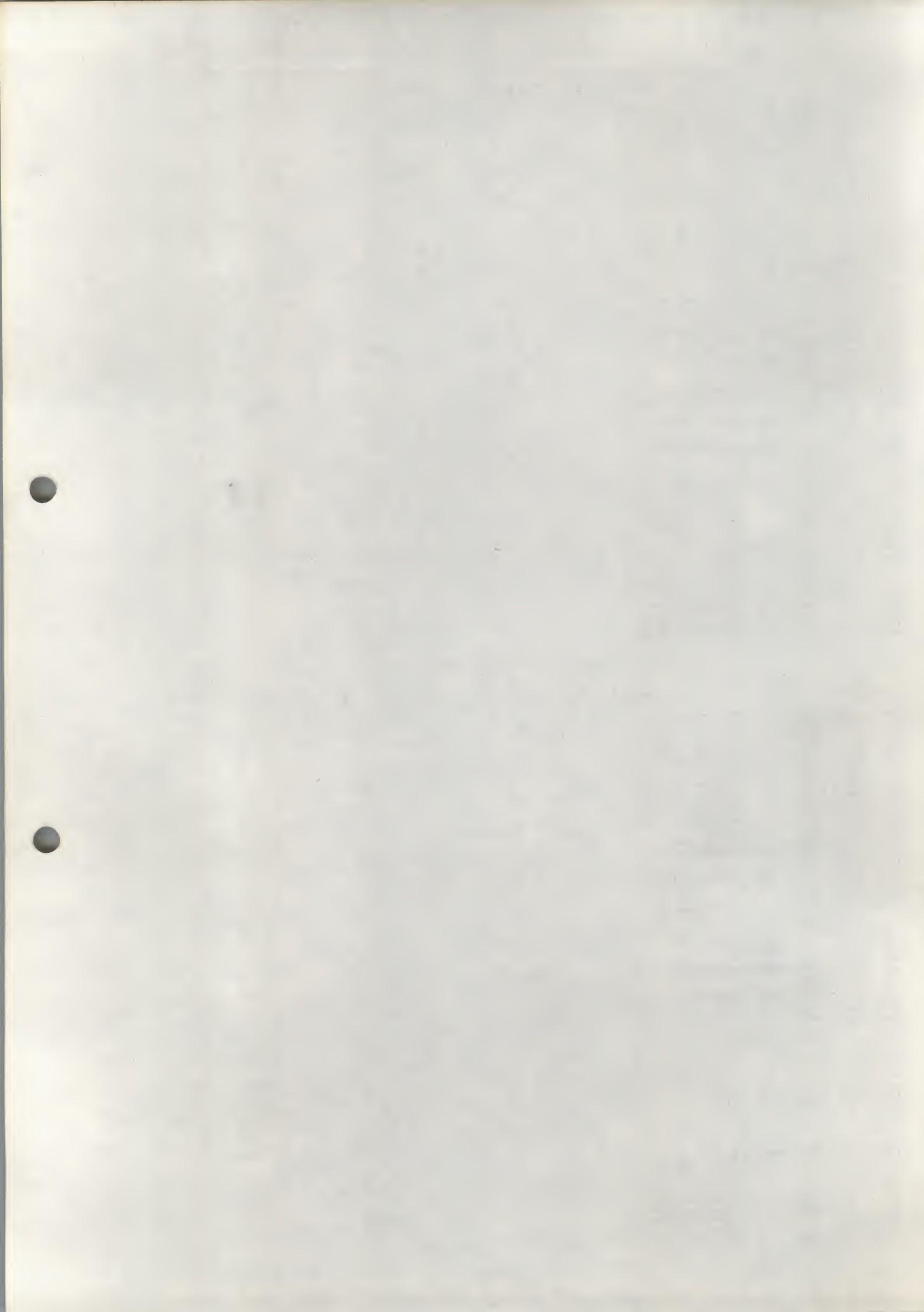
3744 25732 2073 FTANT2, 01010
 3745 25733 01010
 3746 25734 2000
 3747 25735 01000 FSINZ, 01010
 3748 25736 01010
 3749 25737 01000
 3750 25738 01000 FSINZ, 01010
 3751 25739 01000
 3752 25740 01000
 3753 25741 01000 FSINC1, 203612207/7325
 3754 25742 01000
 3755 25743 7325
 3756 25744 1644 FSINC3, 164417553/5722
 3757 25745 7533
 3758 25746 6722
 3759 25747 5714 FSINC4, 571416223/1032
 3760 25748 6223
 3761 25749 1430
 3762 25750 1733 FSINC5, 175512632/1276
 3763 25751 7632
 3764 25752 1276
 3765 25753 6223 FSINC6, 6225125617406
 3766 25754 1256
 3767 25755 7426
 3768 25756 2016 FSINC7, 201612227/7325
 3769 25757 2207
 3770 25758 7325
 3771 25759 6234 FSINC8, 603412000/0000
 3772 25760 3200
 3773 25761 2000
 3774 25762 4435 UPARRX, FENTER
 3775 25763 2634 FST+BKWD+,=FSINZ
 3776 25764 2100 FSGE
 3777 25765 1221 FJMP+FWD+EXPLONG=,
 3778 25766 0000 FEXIT
 3779 25767 4876 JMS I PINT
 3780 25768 0435 FENTER
 3781 25769 5642 FS8+BKWD+,=FSINZ
 3782 25770 0050 FSEQ
 3783 25771 1213 FJMP+FWD+EXPLONG=,
 3784 25772 3645 FLD+BKWD+,=FSINZ
 3785 25773 5207 FS8+FWD+FUPRC1=,
 3786 25774 0150 FSLE
 3787 25775 1207 FJMP+FWD+EXPLONG=,
 3788 25776 3651 FLD+BKWD+,=FSINZ
 3789 25777 0300 FEXIT
 3790 25778 5761 JNP I .+1
 3791 25779 6457 UPARROW
 3792 25780 2077 FUPRC1, 2077/7702
 3793 25781 7700
 3794 25782 3073 EXPLONG,FLD OPERAND
 3795 25783 2200 FEXIT
 3796 25784 4775 JMS I PLOG
 3797 25785 4435 FENTER
 3798 25786 6663 FMP+BKWD+,=FSINZ

3800 05771 0000 FEXIT
 3801 05772 4776 JMS I PEXP
 3801 05773 5774 JNP I .+1
 3802 05774 1203 OPDONE
 3803 05775 6114 PLG, LOG
 3804 05776 6000 PEXP, EXP
 3805
 3806
 3807
 3808
 3809
 3810
 3811
 3812
 3813 6000 PAGE
 3814
 3815
 3816 26200 2200 EXP, 0
 3817 26201 4435 FENTER
 3818 26202 7270 FDV+FWD+FEXP C1=,
 3819 26203 2261 FST+FWD+FEXP U=,
 3820 26204 0000 FEXIT
 3821 26205 4660 JMS I PPINT
 3822 26206 7330 CLA CLL CML RAR
 3823 26207 1224 TAD ACS
 3824 26208 3224 DCA ACS
 3825 26209 4435 FENTER
 3826 26210 2247 FST+FWD+FEXP I=,
 3827 26211 4251 FAD+FWD+FEXP U=,
 3828 26212 2253 FST+FWD+FEXP F=,
 3829 26213 6252 FMP+FWD+FEXP F=,
 3830 26214 4257 FAD+FWD+FEXP C2=,
 3831 26215 2245 FST+FWD+FEXP U=,
 3832 26216 3241 FLD+FWD+FEXP I=,
 3833 26217 0000 FEXIT
 3834 26218 4526 JMS I PFIK
 3835 26219 7020 FXXPFX, NOP / (IAC IF 1 ORG INDEXING)
 3836 26220 3261 DCA FEXP I
 3837 26221 1224 TAD ACS
 3838 26222 7164 CLA CLL CML RAL
 3839 26223 1261 TAD FEXP I
 3840 26224 7220 SNL
 3841 26225 7241 CIA
 3842 26226 7201 IAC
 3843 26227 3261 DCA FEXP I
 3844 26228 4435 FENTER
 3845 26229 3243 FLD+FWD+FEXP C3=,
 3846 26230 7226 FST+FWD+FEXP U=,
 3847 26231 4244 FAD+FWD+FEXP C4=,
 3848 26232 5227 FSB+FWD+FEXP F=,
 3849 26233 2223 FST+FWD+FEXP U=,
 3850 26234 3225 FLD+FWD+FEXP F=,
 3851 26235 6224 FMP+FWD+FEXP S=,
 3852 26236 6242 FAD+FWD+FEXP C5=,
 3853 26237 4217 FAD+FWD+FEXP U=,



3854 06046 2216 FST+FWD+FEPU=,
 3855 06207 3220 FLD+FWD+FEPF=,
 3856 06250 7214 FDV+FWD+FEPU=,
 3857 05251 4240 FAD+FWD+FEPC6=,
 3858 05252 2215 FST+FWD+FEPF=,
 3859 06253 2370 FEXIT
 3860 06254 1225 TAD ACS
 3861 06255 1261 TAD FEPI
 3862 06256 3225 DCA ACS
 3863 06257 5622 JMP I EXP
 3864 06258 6434 PRINT, INT
 3865 06261 2102 FEPI, 21010
 3866 06262 2720
 3867 06263 2720
 3868 06264 2320 FEPU, 21010
 3869 06265 2020
 3870 06266 2220
 3871 06267 2220 FEPPF, 01010
 3872 06270 2222
 3873 06271 2222
 3874 06272 2225 FEPCJ, 2005/4271/0300
 3875 06273 4271
 3876 06274 2320
 3877 06275 2375 FEPPC, 2075/3552/7222
 3878 06276 3552
 3879 06277 7222
 3880 06120 6124 FEPPC3, 6124/6477/0715
 3881 06121 6077
 3882 06122 0715
 3883 06123 2244 FEPPC4, 2044/7643/0062
 3884 06124 7643
 3885 06125 0262
 3886 06126 1744 FEPPC5, 1744/3372/3400
 3887 06107 3372
 3888 06110 3400
 3889 06111 2024
 3890 06112 0280
 3891 06113 0220
 3892 06114 2220 LOG, 0
 3893 06115 1224 TAD ACS
 3894 06116 7710 SPA CLA
 3895 06117 5447 JMP I PARGERR
 3896 06120 1225 TAD ACE
 3897 06121 3365 DCA LOGACE
 3898 06122 1155 TAD 0200
 3899 06123 3025 DCA ACE
 3900 06124 4035 FENTER
 3901 06125 2641 FST+BKWD+-,=FEPU
 3902 06126 4244 FAD+FWD+FLGCI=,
 3903 06127 2340 FST+BKWD+-,=FEPPF
 3904 06130 3244 FLD+BKWD+-,=FEPU
 3905 06131 5241 FSB+FWD+FLGCI=,
 3906 06132 7643 FDV+BKWD+-,=FEPPF
 3907 06133 2644 FST+BKWD+-,=FEPPF
 3908 06134 6645 FMP+BKWD+-,=FEPPF

3929 06135 6216 FMP+FWD+FLGCI2=,
 3930 06136 4220 FAD+FWD+FLGCI3=,
 3931 06137 6650 FMP+BKWD+-,=FEPPF
 3932 06140 6651 FAD+BKWD+-,=FEPPF
 3933 06141 4220 FAD+FWD+FLGCI4=,
 3934 06142 6653 FMP+BKWD+-,=FEPPF
 3935 06143 5632 FSB+BKWD+-,=FEPC6
 3936 06144 2655 FST+BKWD+-,=FEPPF
 3937 06145 3217 FLD+FWD+LOGFWD=,
 3938 06146 5221 FSB+FWD+LOGOKW=,
 3939 06147 4660 FAD+BKWD+-,=FEPPF
 3940 06150 6656 FMP+BKWD+-,=FEPC1
 3941 06151 2020 FEXIT
 3942 06152 5714 JMP I LOG
 3943 06153 2324 FLGCI2, 2004/6253/2521
 3944 06154 6253
 3945 06155 2521
 3946 06156 2307 FLGCI3, 2007/5421/3604
 3947 06157 5221
 3948 06160 3604
 3949 06161 2225
 3950 06162 6125
 3951 06163 1207
 3952 06164 2174 LOGFWD, 2174
 3953 06165 0200 LOGACE, 0
 3954 06166 0220 0
 3955 06167 2174 LOGOKW, 2174/020010
 3956 06170 0200
 3957 06171 0200
 3958 06172 2305 FLGCI1, 2025/5202/3632
 3959 06173 5222
 3960 06174 3632
 3941
 3942
 3943
 3944
 3945
 3946
 3947
 3948
 3949 6200 PAGE
 3950
 3951
 3952
 3953
 3954 06200 0202 ATN, 0
 3955 06201 1224 TAD ACS
 3956 06222 3272 DCA FATNSX
 3957 06233 3224 DCA ACS
 3958 06224 4335 FENTER
 3959 06225 2271 FST+FWD+FATNT=,
 3960 06226 2265 FST+FWD+FATNAX=,
 3961 06227 5275 FSB+FWD+FATNC1=,
 3962 06230 0140 FSOT
 3963 06231 1254 FJMP+FWD+ATNBIG=,



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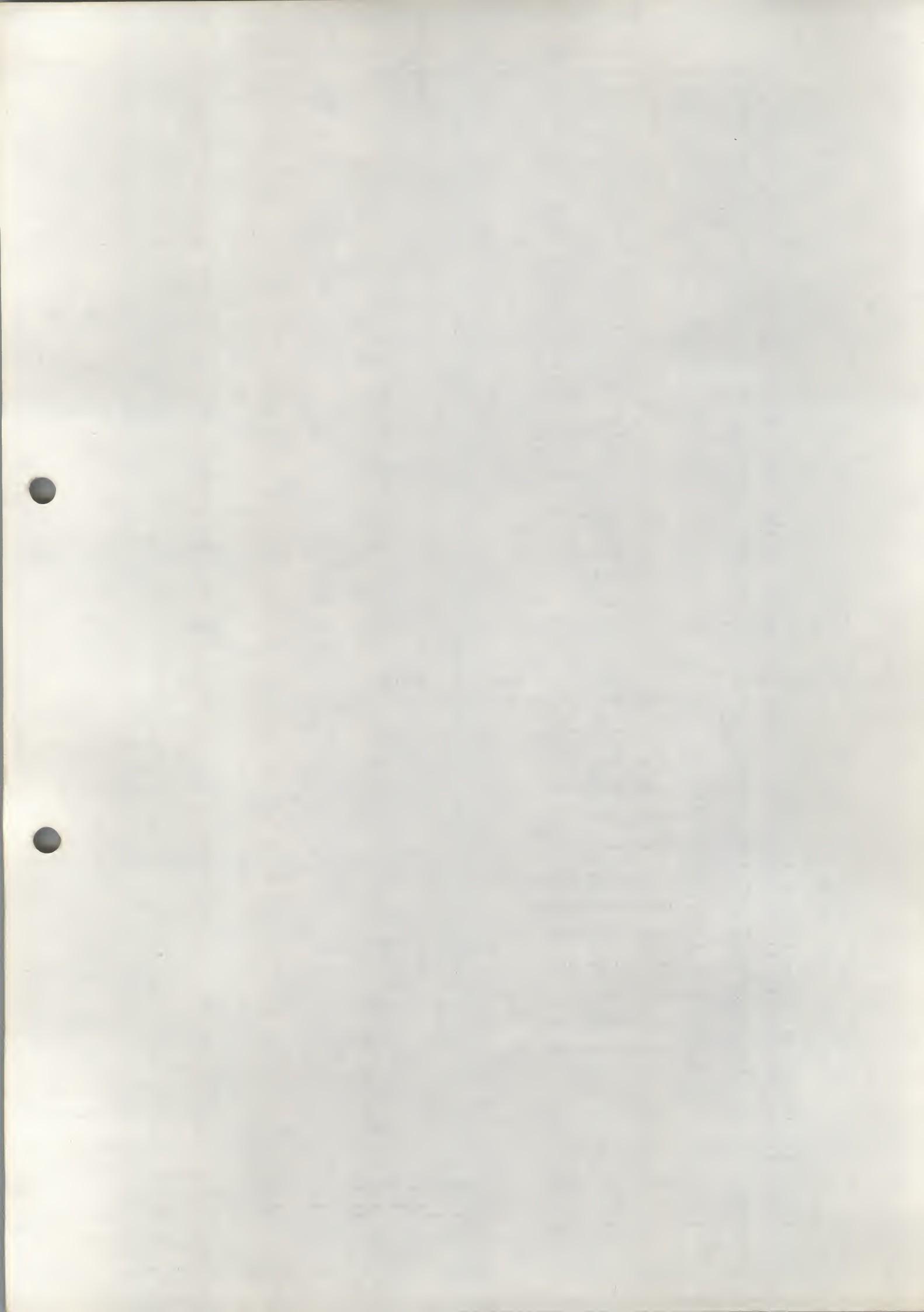
3964 26212 5275    FSB+FWD+FATNC2=.
3965 26213 0140    FSCT
3966 26214 1279    FJMP+FWD+ATNLOW=.
3967 26215 3151    FLD ONE
3948 26216 7263    FDV+FWD+FATNT=.
3969 26217 2257    FST+FWD+FATNT=.
3970 26220 3152    ATNLOW, FLD ZERO
3971 26221 2316    FST+FWD+FATNC=.
3972 26222 3254    FLD+FWD+FATNT=.
3973 26223 5267    FSB+FWD+FATNC5=.
3974 26224 0120    FSCE
3975 26225 1212    FJMP+FWD+FATNT=.
3976 26226 3250    FLD+FWD+FATNT=.
3977 26227 4266    FAD+FWD+FATNC=.
3978 26228 2246    FST+FWD+FATNT=.
3979 26231 3314    FLD+FWD+FATNC1=.
3992 26232 7244    FDV+FWD+FATNT=.
3981 26233 4262    FAD+FWD+FATNC=.
3982 26234 2242    FST+FWD+FATNT=.
3983 26235 3263    FLD+FWD+FATNC5=.
3984 26236 2301    FST+FWD+FATNC=.
3985 26237 3237    ATNNOT, FLD+FWD+FATNT=.
3986 26242 6236    FHD+FWD+FATNT=.
3987 26241 2240    FST+FWD+FATNTT=.
3988 26242 3261    FLD+FWD+FATNC6=.
3989 26243 6236    FMP+FWD+FATNTT=.
3990 26244 4262    FAD+FWD+FATNC7=.
3991 05245 6234    FHD+FWD+FATNTT=.
3992 26246 4263    FAD+FWD+FATNC8=.
3993 26247 6232    FMP+FWD+FATNTT=.
3994 26252 4264    FAD+FWD+FATNC=.
3995 05251 6230    FMP+FWD+FATNTT=.
3996 26252 4151    FAD ONE
3997 26253 6223    FMP+FWD+FATNT=.
3998 06254 4263    FAD+FWD+FATNC=.
3999 06255 2221    FST+FWD+FATNT=.
4000 26256 3215    FLD+FWD+FATNAX=.
4001 26257 5151    FSB ONE
4022 26260 0140    FSCT
4023 26261 1204    FJMP+FWD+ATNBIG=.
4024 26262 3260    FLD+FWD+FATNC=.
4005 26263 5213    FSB+FWD+FATNT=.
4026 26264 2212    FST+FWD+FATNT=.
4037 26265 3211    ATNBIG, FLD+FWD+FATNT=.
4028 26266 0000    FEXIT
4009 26267 1272    TAD FATNSX
4010 26270 3224    OCA ACS
4011 26271 5600    JMP I ATN
4012 26272 0200    FATNSX, 0
4013 26273 0220    FATNAX, 01010
4014 26274 0200
4015 26275 0200
4016 26276 0200    FATNT, 01010
4017 26277 0200
4018 26300 0200

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4019 26301 0200    FATNTT, 01010
4020 26302 0200
4021 26303 0200
4022 26304 1634    FATNC1, 1634/0000/0000
4023 26305 0000
4024 26306 0000
4025 26307 2007    FATNC2, 2007/7776/0000
4026 26310 7776
4027 26311 0200
4028 26312 1774    FATNC3, 1774/2230/2427
4029 26313 2230
4030 26314 2427
4031 26315 2016    FATNC4, 2016/7331/7272
4032 26316 7331
4033 26317 7272
4034 26320 2004    FATNC5, 2224/1405/2216
4035 26321 1405
4036 26322 2216
4037 26323 1756    FATNC6, 1756/0462/4562
4038 26324 0462
4039 26325 4562
4040 26326 5764    FATNC7, 5764/4221/3403
4041 26327 4221
4042 26330 3403
4043 26331 1766    FATNC8, 1766/3141/6672
4044 26332 3141
4045 26333 6672
4046 26334 5775    FATNC9, 5775/2525/2337
4047 26335 2525
4048 26336 2337
4049 26337 0000    FATNC, 01010
4050 26340 0000
4051 26341 0000
4052 26342 2016    FATNCM, 2016/2207/7325
4053 26343 2207
4054 26344 7325
4055 26345 6034    FATNCJ, 6034/0000/0000
4056 26346 0200
4057 26347 0000
4058
4059
4060
4061
4062
4063
4064
4065
4066
4067
4068
4069 26350 1126    TABDO, TAD COLUMN    /GET WHERE WE ARE NOW.
4070 26351 7241    CIA
4071 26352 1367    TAD TABDES    /COMPARE AGAINST WHERE WE WANT TO BE,
4072 26353 7740    SNA SZA CLA    /DO WE HAVE TO BACK UPT
4073 26354 5360    JMP TABOK    /NOPE.

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/BASIC.LBE

PAL8-V9 / / PAGE 11-7

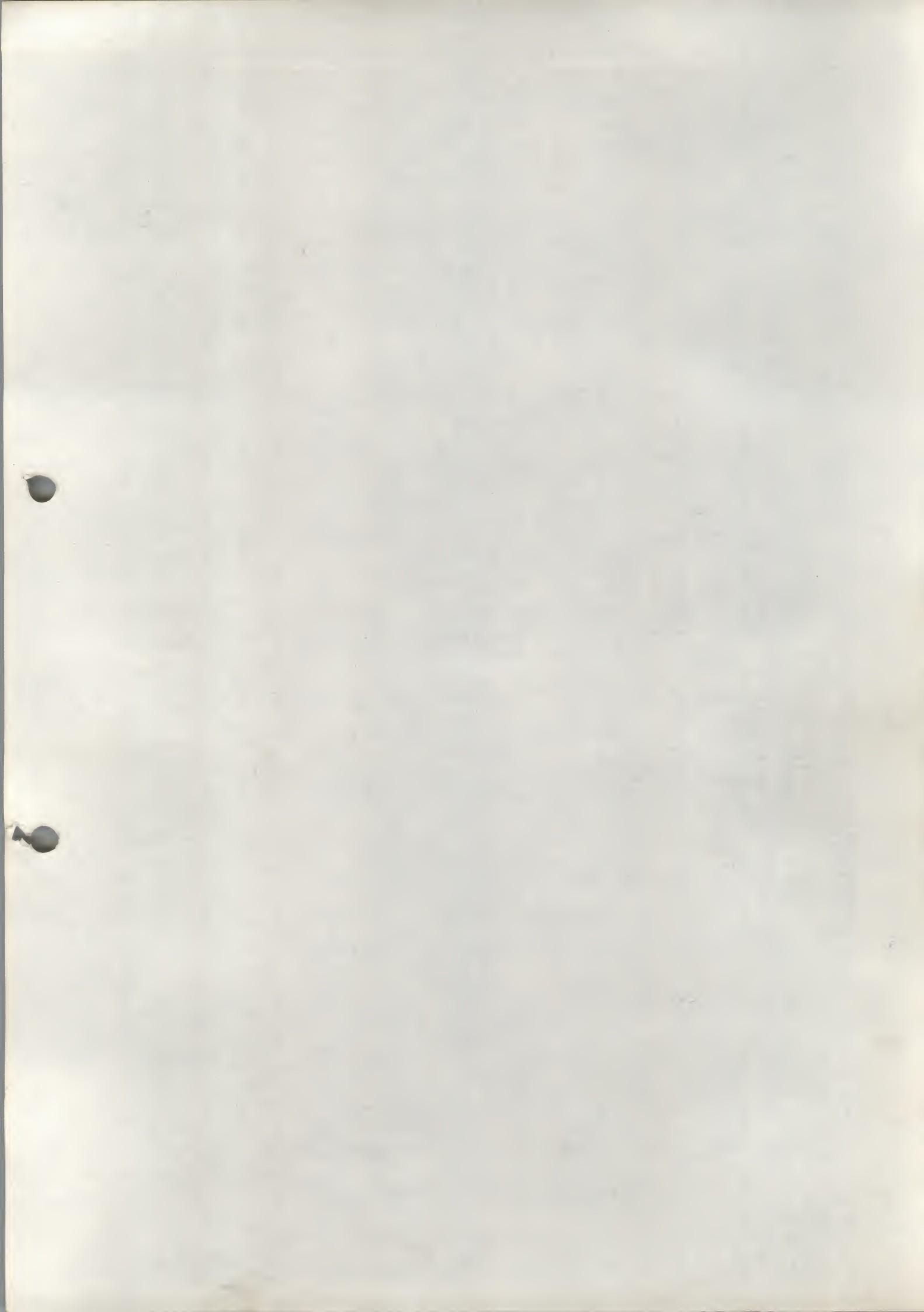
4074 06355 1007 TAD 0215 //YEP. GIVE C.R.
4075 06356 4433 JMS I PPUTCH //SEND IT
4076 06357 4433 JMS I PPUTCH //ALSO SEND A NULL CHARACTER TO ALL TTY TO RETURN.
4077 06358 1126 TABOK, TAD COLUMN //GET WHERE WE ARE.
4078 06359 7040 CHA //NEGATE=1
4079 06360 1367 TAD TABDES //WHERE DO WE WANT TO BE?
4080 06363 7750 SNA SPA CLA //?
4081 06364 5770 JMP I TPRINT //HERE. EXIT.
4082 06365 1051 TAD 0248 //FARTHER UP.
4083 06366 5357 JNP TABOK-1 //GIVE SPACE AND LOOP AGAIN.
4084
4085
4086 06367 0200 TABDES, 0
4087 06370 2227 TPRINT, PRINTC
4088
4089
4090
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4096
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4098

//NORMAL EXIT LOCATION.

/BASIC.LBE

PAL8-V9 / / PAGE 12

4109
4100
4101
4102
4103
4104 6400 PAGE
4105
4106
4107
4108
4109
4110
4111
4112 06420 2220 CHKFIT, 0
4113 06421 1160 TAD 04
4114 06422 4544 JMS I SPLEFT
4115 06423 5620 JMP I CHKFIT
4116 06424 4561 JMS I PLINFIX
4117 06425 4537 JMS I PRESET
4118 06426 4514 JMS I PPRINTXT //RESET ALL I/O DEVICES.
4119 06427 3562 UGH1
4120 06410 3264 DCA SNUMFLG //RESET THIS FLAG NOW
4121 06411 5612 JMP I ++1
4122 06412 2610 NEWLIN //THIS MAY BE RIGHT.
4123
4124
4125
4126
4127
4128
4129 06413 0220 RMLEFT, 0
4130 06414 7120 CLL
4131 06415 1023 TAD ARRLOC
4132 06416 7432 SZL
4133 06417 5223 JMP NORLFT
4134 06420 7841 CIA
4135 06421 1024 TAD CODELOC
4136 06422 7620 SNL CLA
4137 06423 2213 NORLFT, ISZ RMLEFT
4138 06424 5613 JMP I RMLEFT
4139
4140
4141
4142
4143
4144
4145
4146 06425 0220 ABS, 2
4147 06426 3224 DCA ACS
4148 06427 5625 JMP I ABS
4149
4150
4151
4152
4153



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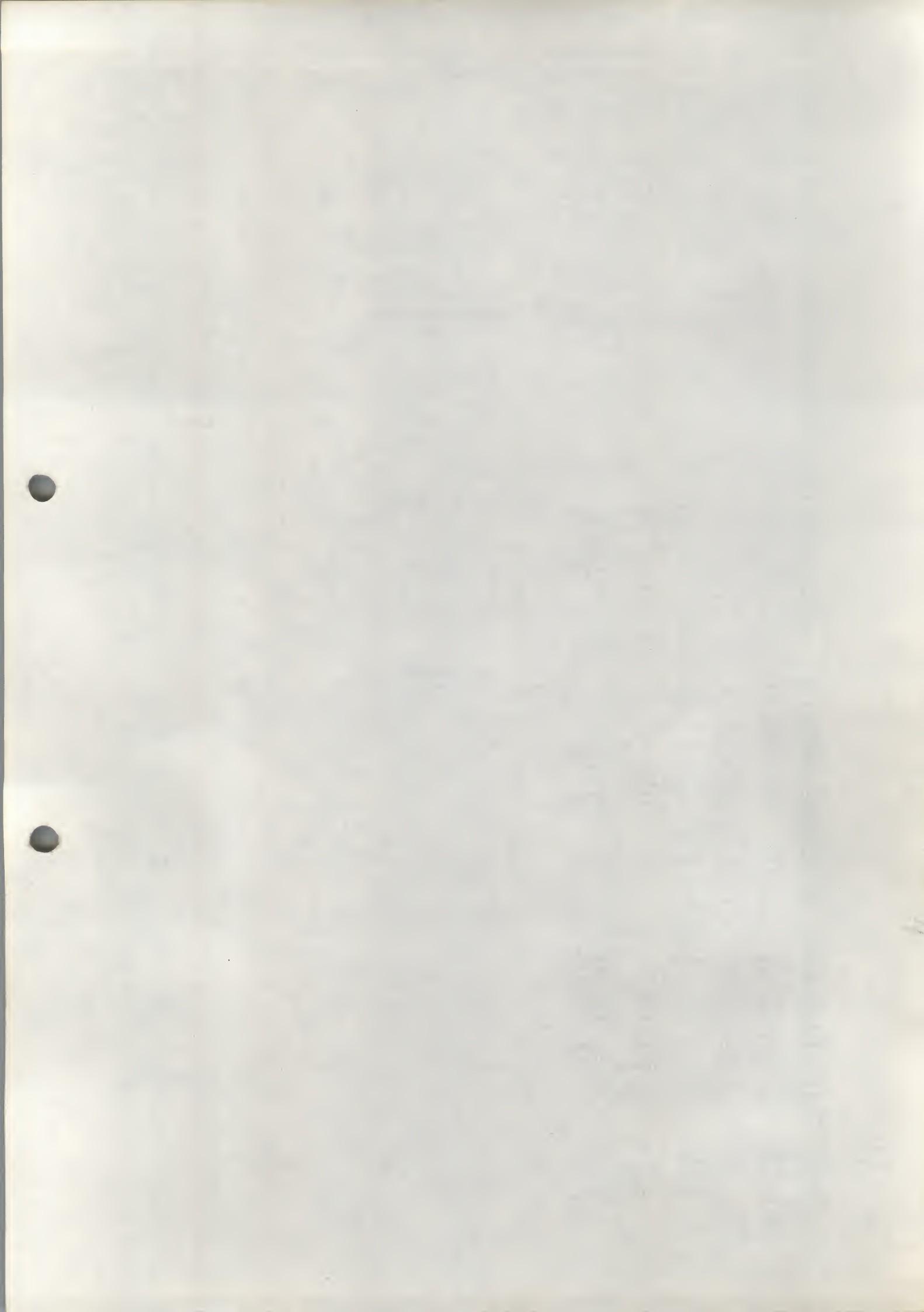
4154 06432 0000 STICKI,0
4155 06431 3403 DCA I ARRLOC
4156 06432 2003 152 ARRLOC
4157 06433 5630 JMP I STICKI
4158
4159
4160
4161
4162
4163
4164 06434 0003 INT, 0
4165 06435 4506 JMS I PFX
4166 06436 7103 CLA
4167 06437 0505 JMS I PANORM
4168 06438 5634 JMP I INT
4169
4170
4171
4172
4173
4174 06441 0702 SXERR, 0
4175 06442 7920 CLA /INCASE THIS IS JMS'D TO.
4176 06443 3201 DCA SXERR
4177 06444 4477 JMS I PERROR
4178 06445 2331 TEXT "SYNTAX"
4179 06446 1124
4180 06447 2130
4181 06448 0000
4182 06449 4001 ATLINE, TEXT * AT LINE *
4183 06450 2440
4184 06451 1411
4185 06452 1605
4186 06453 4000
4187
4188
4189
4190
4191
4192
4193
4194
4195
4196 06456 7570 07570, 7570
4197 06457 1024 UPARROW,TAD ACS
4198 06460 7720 SMA CLA
4199 06461 1256 TAD 07570
4200 06462 1025 TAD ACE
4201 06463 7720 SMA CLA
4202 06464 5447 JMP I PARGERR
4203 06465 6526 JMS I PFX
4204 06466 5567 JMP I .*1
4205 06467 4365 UPARR2

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4209
4210
4211 06470 4570 MOREDIM,MUSTBE /*,*
4212 06471 3763 3763
4213 06472 7240 DIM, CLA CMA
4214 06473 3234 DCA DIMFLAG
4215 06474 4501 JMS I PEVAL
4216 06475 4566 ISIT /(CR) OR /*\
4217 06476 2020 2020
4218 06477 5270 JMP MOREDIM
4219 06500 5503 JMP I PEXECUTE/YES.
4220
4221
4222
4223
4224
4225 06501 4004 DELETED,TEXT * DELETED,*
4226 06522 0514
4227 06523 0524
4228 06524 0504
4229 06525 3700
4230
4231
4232
4233
4234
4235 06526 1050 AMATCH, TAD WORD
4236 06527 3064 DCA SNUMFLG
4237 06510 1064 TAD SNUMFLG
4238 06511 3457 DCA I FPTR
4239 06512 2257 ISZ FPTR
4240 06513 1260 TAD GPTR
4241 06514 3056 DCA EPTR
4242 06515 4566 ISIT /*REM*
4243 06516 1762 1762
4244 06517 5516 JMP I PSLOOP
4245 06520 5721 JMP I .*1
4246 06521 3043 REMPACK
4247
4248
4249
4250
4251
4252
4253
4254
4255
4256 06522 3723 BREAK, 3723/2417/2056
4257 06523 2417
4258 06524 2056
4259 06525 3722,READY, TEXT ".READY...*"
4260 06526 2501G
4261 06527 0431
4262 06530 5637
4263 06531 3700

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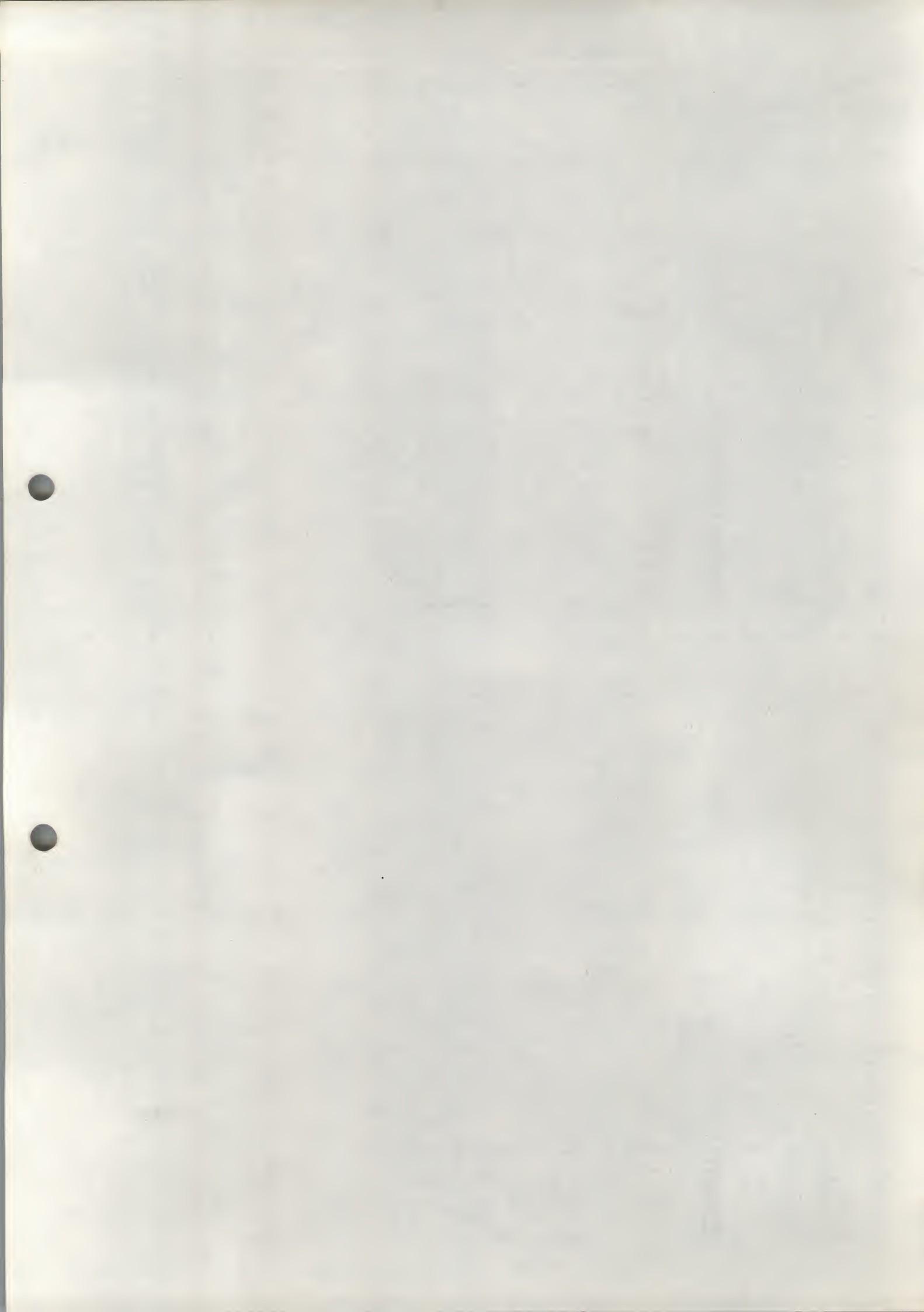
4264      6531 CRLF=.,=1
4265
4266
4267
4268
4269
4270
4271
4272
4273
4274
4275
4276  06532  2000  IS0DIG,  2
4277  06533  4572  JMS I  PN0NBLNK
4278  06534  1344  TAD  07706A
4279  06535  7192  CLL
4280  06536  1265  TAD  012
4281  06537  7228  SNL
4282  06540  7200  CLA
4283  06541  7430  S2L
4284  06542  2332  ISZ  IS0DIG
4285  06543  5732  JMP I  IS0DIG
4286  06544  7706  07706A, 7706
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4293  06545  1042  PZERDCN, TAD  PRTEMP
4294  06546  1043  TAD  DECEXP
4295  06547  7710  SPA CLA
4296  06550  5354  JNP  .+0
4297  06551  1043  TAD  DECEXP
4298  06552  7840  CMA
4299  06553  3642  DCA  PRTEMP
4300  06554  1244  TAD  PNUMBUF
4301  06555  3225  DCA  ACE
4302  06556  7344  CLA CLL CMA RAL
4303  06557  7002  DIGLUP, CMA
4304  06560  1043  TAD  DECEXP
4305  06561  7440  SZA
4306  06562  5365  JNP  .+3
4307  06563  1375  TAD  0256B
4308  06564  4033  JMS I  PPUTCH
4309  06565  3243  DCA  DECEXP
4310  06566  1425  TAD I  ACE
4311  06567  4033  JMS I  PPUTCH
4312  06570  2225  ISZ  ACE
4313  06571  2042  ISZ  PRTEMP
4314  06572  5357  JMP  DIGLUP
4315  06573  5774  JMP I  .+1
4316  06574  5123  FMTENF
4317
4318  06575  0256  0256B,  256
                                //***** 8 K INSERT RETURN.

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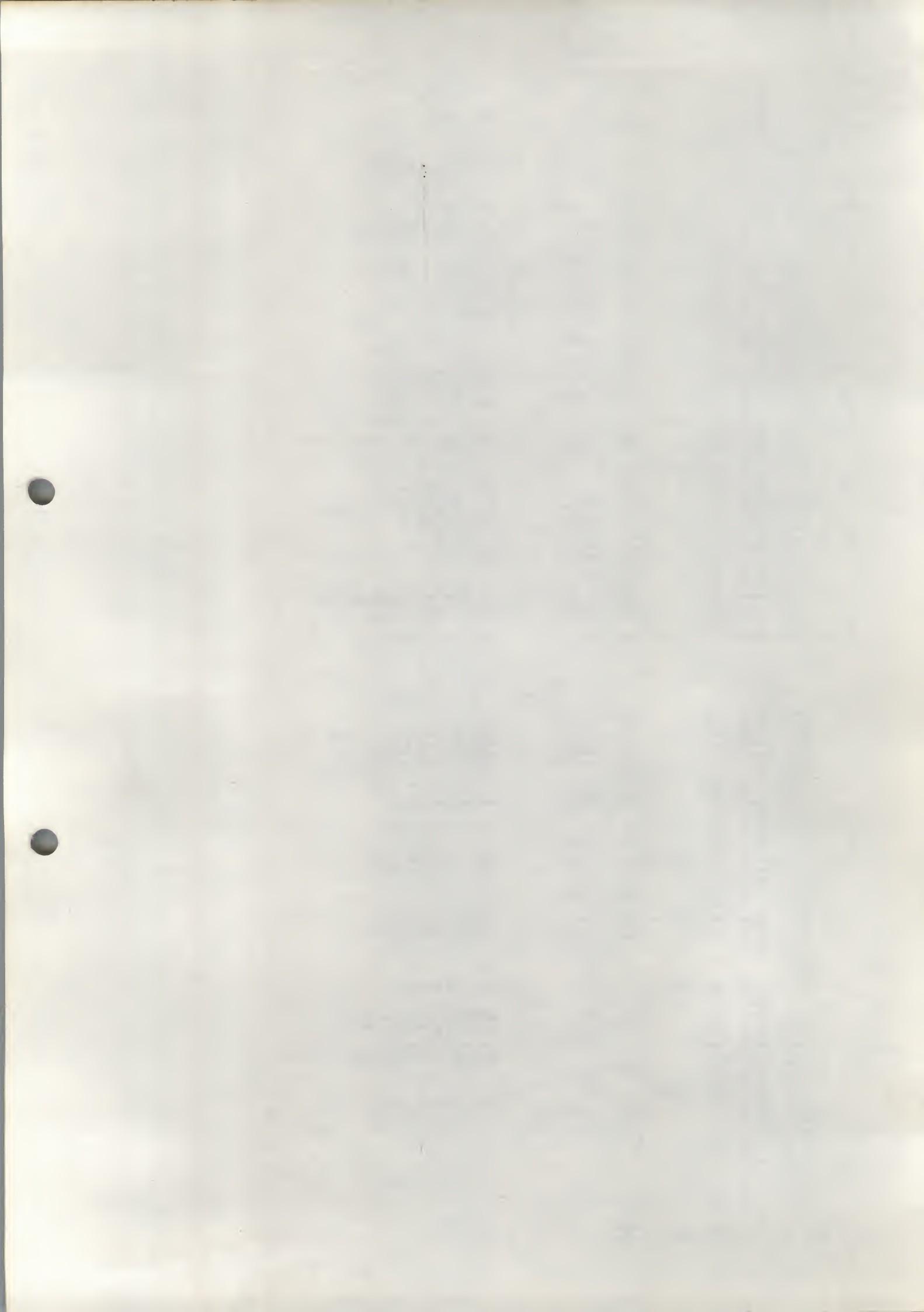
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4346  6600  PAGE
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4351  6661  LSF#6661
4352  6662  LCF#6662
4353  6666  LLS#6666
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4363
4364  06600  3334  INTER, DCA  INTAC      /SAVE ALL IMPORTANT STUFF ON INTERRUPT.
4365  06601  7210  RAR
4366  06602  3335  DCA  INTL
4367  06603  6234  RIB
4368  06604  0374  AND  070
4369  06605  1375  TAD  06202
4370  06606  3371  DCA  INTCIF    /SAVE INSTRUCTION FIELD
4371  06607  6234  RIB
4372  06610  0372  AND  07
4373  06611  7106  CLL RTL    /SHIFT IT OVER

```



4374 06612 7024 RAL
 4375 06613 1215 TAD 06201A /AND THE INSTRUCTION FIELD
 4376 06614 3370 DCA INTCD^F
 4377 06615 6201 06201A, CDF 0 /JUST IN CASE.
 4378
 4379 IFZERO MACHINE<
 4380 06616 7200 NOP > /TO KEEP PAGE SAME SIZE.
 4381
 4382
 4383 IFNZRO MACHINE<
 4384 JMS I SPECINT > /CHECK FOR SPECIAL INTERRUPT DEVICE.
 4385
 4386
 4387 06617 6041 TSR
 4388 06620 5223 JMP .+3 /IS IT THE TELEPRINTER.
 4389 06621 6742 TCF /NO
 4390 06622 5310 JMP INODUN /YEP, CLEAN IT UP.
 4391 06623 6661 LSF /PRINTER?
 4392 06624 5227 JMP .+3 /YEP.
 4393 06625 6662 LCF
 4394 06626 5310 JMP INODUN
 4395 06627 6321 PSF
 4396 06630 5233 JMP .+3 /PUNCH?
 4397 06631 6222 PCF
 4398 06632 5312 JMP INODUN
 4399 06633 6211 RSF
 4400 06634 5241 JMP INOPPP /READER?
 4401 06635 7330 CLA CLL CML RAR /NOPE.
 4402 06636 6212 RRB /4000 TO AC
 4403 06637 3740 DCA I PHRCHAR /READ IN THE CHARACTER.
 4404 06640 5344 JMP INTEXT /EXIT FROM THE INTERRUPT.
 4405
 4406 06641 6663 INOPPP, 6663 /LINE PRINTER ERROR?
 4407 06642 5245 JMP INOTTY /NOPE.
 4408 06643 6667 6667 /YEP, INORE THE LINE PRINTER NOW.
 4409 06644 5344 JMP INTEXT /AND EXIT.
 4410
 4411 06645 6031 INOTTY, KSF /IS IT THE KEYBOARD.
 4412 06646 7402 MLT /NOPE.
 4413 06647 6036 KRB /READ IN THE CHARACTER.
 4414 06650 8227 AND 0177 /CHOP OFF THE STUFF.
 4415 06651 3336 DCA INTEMP /SAVE IN THE INTERRUPT TEMPORARY.
 4416 06652 1336 TAD INTEMP /RECALL IT NOW
 4417 06653 1376 TAD 07775 /IS IT A "C"
 4418 06654 7450 SNA /?
 4419 06655 5265 JMP FCNTLC /YES!
 4420 06656 1377 TAD 077640 /?"
 4421 06657 7650 SNA CLA
 4422 06660 5303 JMP FCNTLO
 4423 06661 7330 CLA CLL CML RAR /SET HIGH ORDER BIT ON FOR SAFETY.
 4424 06662 1336 TAD INTEMP /PUT IT AWAY
 4425 06663 3741 DCA I PINCHAR /AND EXIT FROM INTERRUPT.
 4426 06664 5344 JMP INTEXT
 4427
 4428 06665 1134 FCNTLC, TAD NOINT /CHECK IF OK TO INTERRUPT.

4429 06666 7640 SZA CLA
 4430 06667 5300 JMP CNTLCF /NOT OK.
 4431 06672 6002 CNTLCR, IOF /TURN OFF INTERRUPTS TO BE SURE.
 4432 06671 4542 JMS I DELOUD /DELETE OUTPUT BUFFERS.
 4433 06672 4537 JMS I PRESET /RESET ALL I/O DEVICES.
 4434 06673 4514 JMS I PPRINTXT /GIVE THE STOP MESSAGE
 4435 06674 6522 BREAK /
 4436 06675 1125 TAD PPDLIST /RESET PUSH DOWN POINTER
 4437 06676 3036 DCA PDL
 4438 06677 5520 JMP I PEDIT /AND RESTART CISAB
 4439
 4440 06700 7240 CNTLCF, CHA /RESET "C FOUND SWITCH.
 4441 06701 3134 DCA NOINT
 4442 06702 5344 JMP INTEXT
 4443
 4444 06703 4542 FCNTLO, JMS I DELOUD /DELETE THE OUTPUT NOW, BABY.
 4445 06704 1133 TAD CNTLO /NEGATE CNTLO SWITCH.
 4446 06705 7240 CHA
 4447 06706 3133 DCA CNTLO
 4448 06707 5344 JMP INTEXT
 4449
 4450 06710 3742 INODUN, DCA I POFLAG /RESET OUTPUT FLAG.
 4451 06711 4743 JMS I POUTIT /PREFORM THE NEXT OPERATION.
 4452 06712 5344 JMP INTEXT
 4453
 4454
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 4456
 4457 06713 0000 BIDLE, 0 /THE IDLE ROUTINE
 4458 06714 6002 IOF
 4459 06715 7201 CLA IAC
 4460 06716 3337 DCA BUSY /RESET THE IDLE TASK FLAG.
 4461 06717 6214 RDF /SAVE THE DATA FIELD NOW.
 4462 06720 1215 TAD 06201A /AND PLACE IN WHERE TO GO ON IDLE EXIT.
 4463 06721 3362 DCA INTECDF /RESTORE THE IDLE ROUTINES PARAMETERS.
 4464 06722 1331 TAD IDLELK
 4465 06723 7104 CLL RAL
 4466 06724 1332 TAD IDLEAC
 4467 06725 6211 IDLECD, CDF 10
 4468 06726 6202 IDLECI, CIF 0
 4469 06727 6021 ION /AND DO THE IDLE STUFF
 4470 06730 5733 JMP I IDLEPC
 4471
 4472
 4473 06731 0200 IDLELK, 0
 4474 06732 0200 IDLEAC, 0
 4475 06733 7415 IDLEPC, NULJOB
 4476
 4477 06734 2203 INTAC, 0
 4478 06735 2203 INTL, 0
 4479 06736 2200 INTEMP, 0
 4480 06737 2203 BUSY, 0
 4481
 4482 06740 7256 PHRCHAR, WRCCHAR
 4483 06741 7255 PINCHAR, INCHAR



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4484 06742 7120 P0FLAG, DFLAG
4485 26743 7043 POUTIT, OUTIT

4486
4487
4488
4489 06744 1337 INTEXT, TAO      BUSY    /GET STATUS.
4490 06745 7652 SNA CLA
4491 06746 5365 JMP     INTCU   /WE WERE NOT IDLE, EXIT NOW.
4492 26747 3337 DCA     BUSY
4493 26752 1200 TAO     2
4494 06751 3333 DCA     IDLEPC
4495 06752 1334 TAD     INTAC   /SAVE
4496 26753 5332 DCA     IDLEAC
4497 06754 1855 TAD     INTL
4498 06755 3331 DCA     IDLELK
4499 26756 1371 TAD     INTCIF

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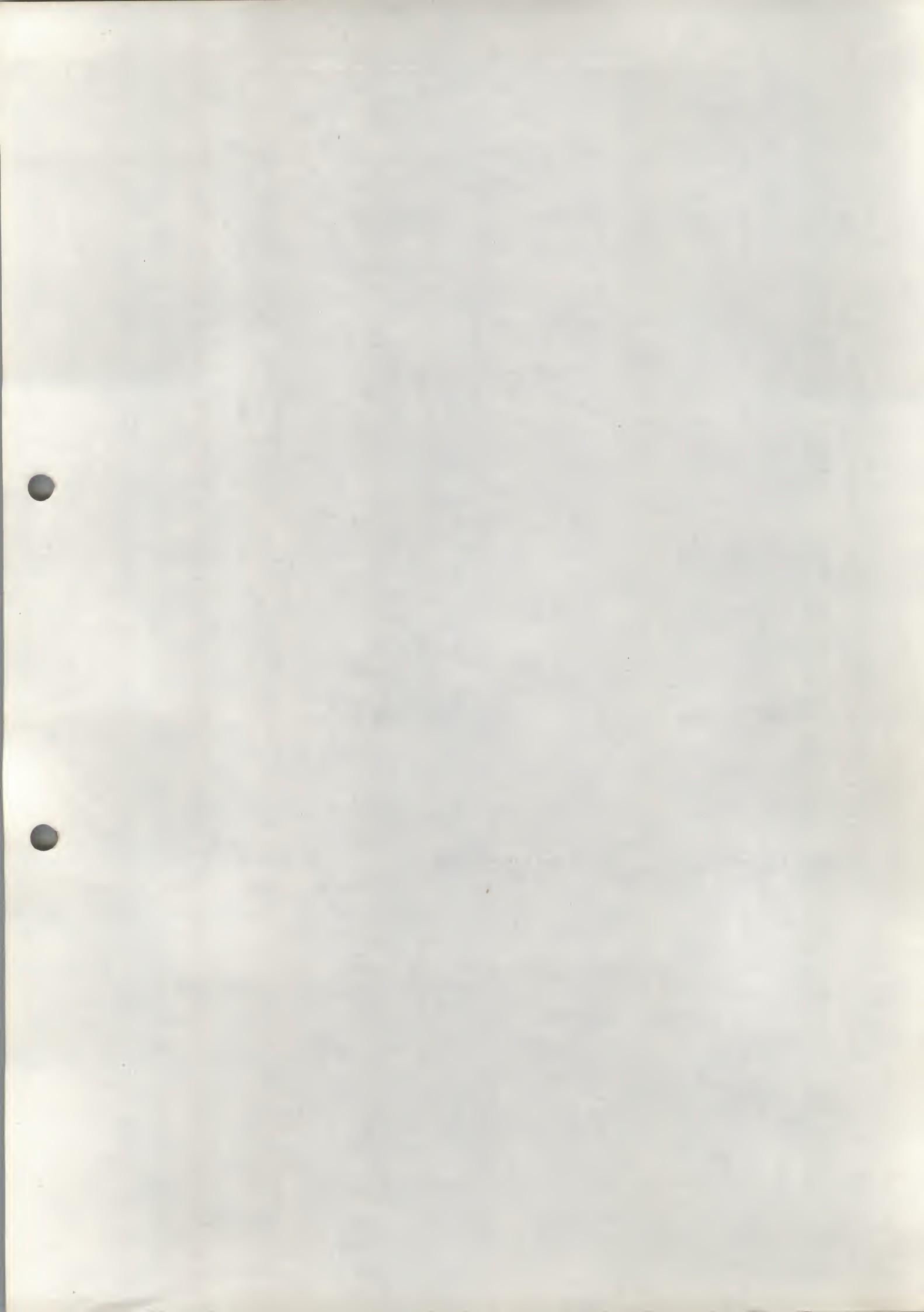
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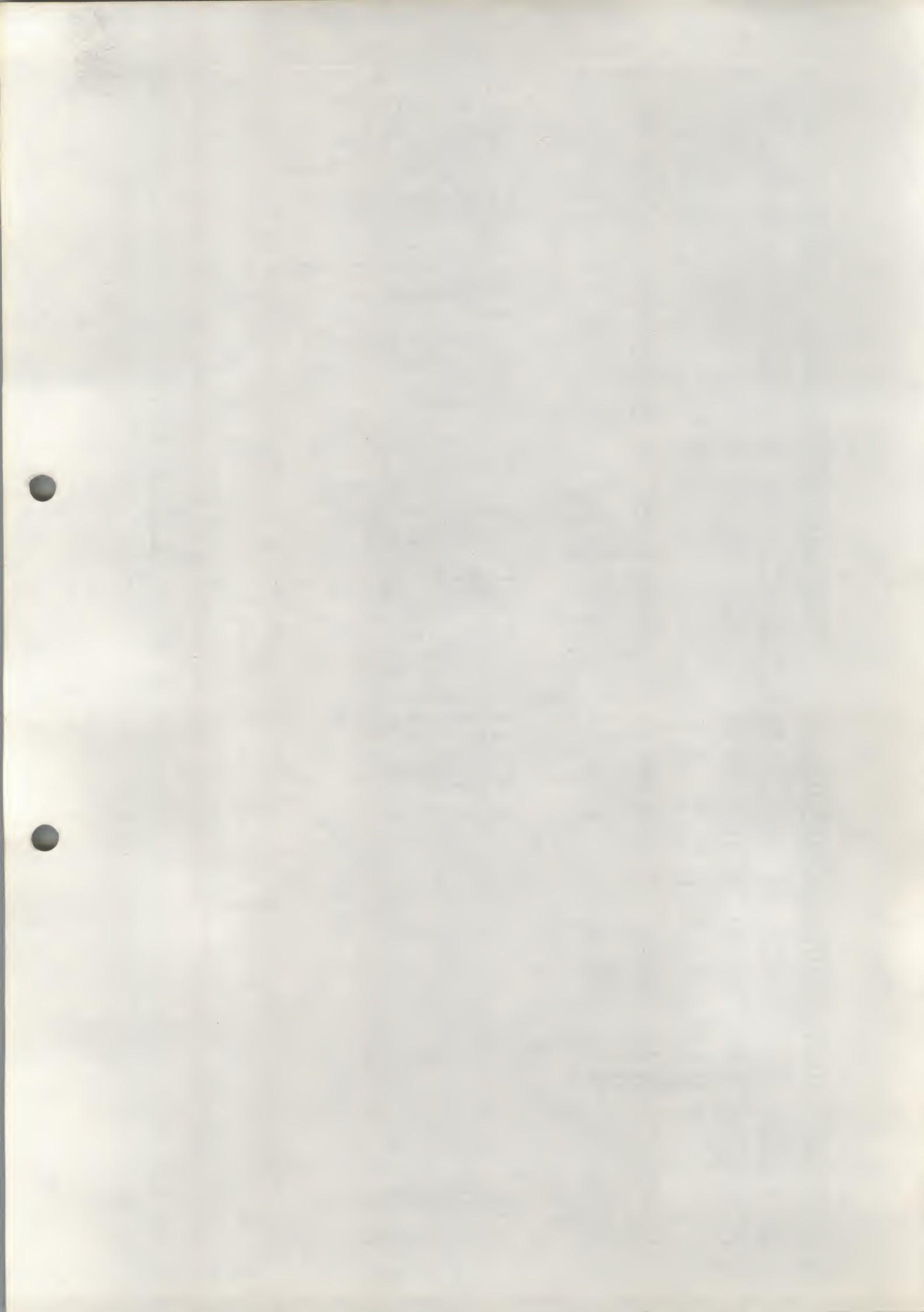
4522 06757 3326      OCA      IDLECIF
4521 06760 1372      TAD      INTCDF
4522 06761 3325      OCA      IDLECOF
4523 06762 7022      INTECD, HLT   /IDLE ROUTINES CALLING CDF.
4524 06763 6721      ION
4525 06764 5713      JMP I    IDOLE
4526
4527
4528 06765 1335      INTOU, TAD   /AND GO BACK NOW,
4529 26766 7184      CLL RAL
4510 06767 1334      TAD      INTAC
4511 06770 7422      INTCDF, HLT
4512 06771 7422      INTCIF, HLT
4513 06772 6201      ION
4514 06773 5400      JMP I    0
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4520 06774 0270      072,    70
4521 06775 6202      06202,   6202
4522 06776 7775      07775,   7775
4523 06777 7764      077640,  7764
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4553 07200 0002      PUTER,  0   /THE CHARACTER PUTTER.
4554 07201 3241      OCA      OPUTC  /SAVE THE CHARACTER NOW.

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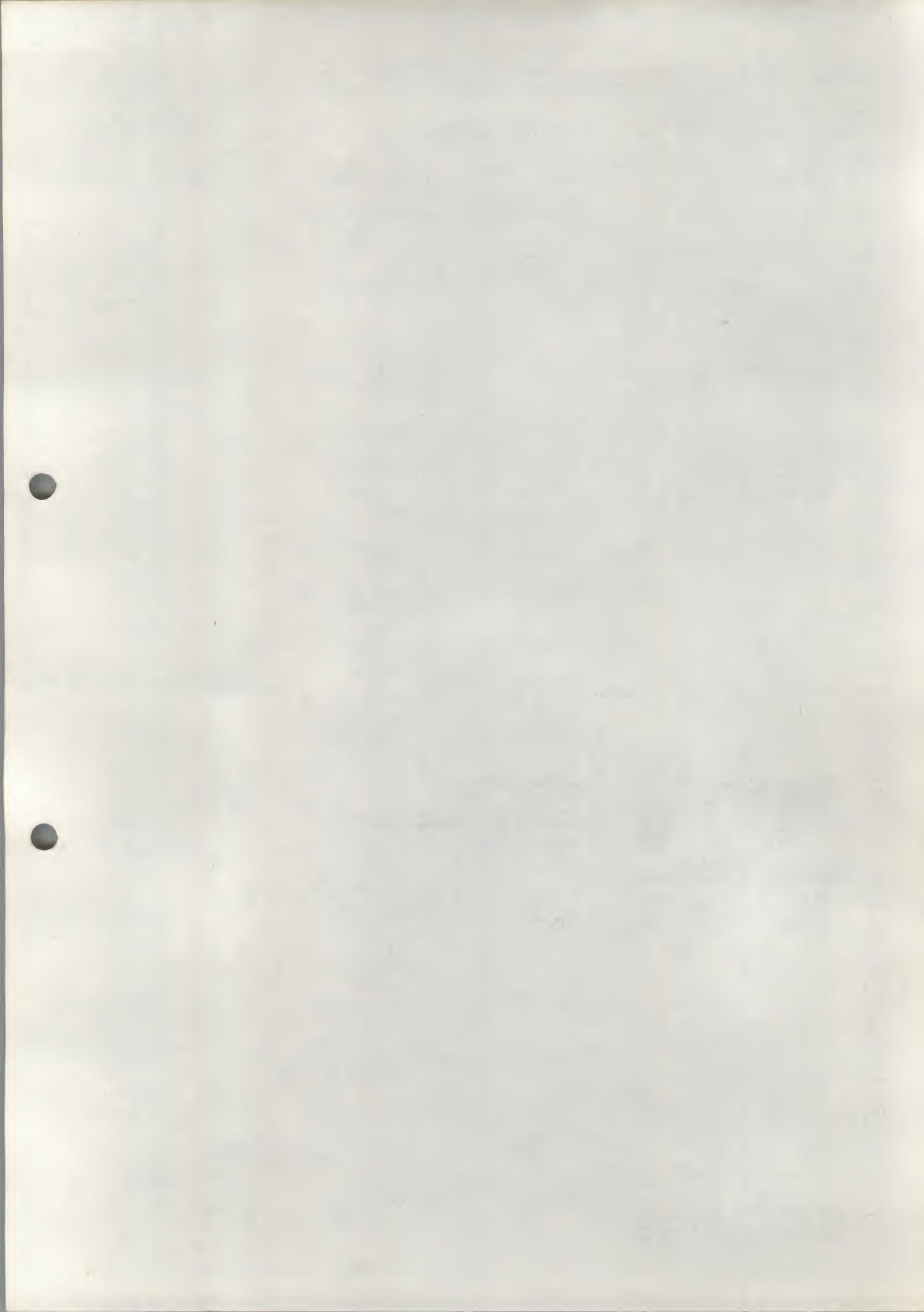
4555 07032 6214 R0F /READ THE DATA FIELD NOW.
 4556 07713 1205 TAD C6221B /CREATE PROPER CDF INSTRUCTION.
 4557 07224 3237 DCA PUTCDF /SAVE CDF INSTRUCTION.
 4558 07305 6221 06201B, CDF /RESET CDF TO THIS DATA FIELD.
 4559 07305 7412 SXP
 4560 07207 4761 PUTLP, JMS I /CALL IN THE IDLE ROUTINE NOW.
 4561 07312 1242 TAD CCOUNT /GET NUMBER OF CHARACTERS IN THE BUFFER.
 4562 07311 7352 SNA
 4563 07312 5223 JMS /PUTCIN
 4564 07313 1315 TAD OCHLIM
 4565 07315 7630 SNA CLA
 4566 07315 5207 JMP PUTLP
 4567 07316 1131 TAD OUTDEV
 4568 07317 7341 CLA
 4569 07322 1132 TAD CCDEV
 4570 07321 7603 SZA CLA
 4571 07322 5207 JMP PUTLP
 4572
 4573 07023 6002 PUTCIN, IOC /NOPE, WAIT FOR BUFFER TO BECOME EMPTY.
 4574 07224 1133 TAD CNTLO
 4575 07225- 7650 SNA CLA
 4576 07026 1131 TAD OUTDEV
 4577 07227 5132 DCA CCDEV
 4578 07030 2242 ISZ CCOUNT
 4579 07031 1241 TAD OPUTC
 4580 07032 3634 OCA I IPOINT
 4581 07033 4301 JMS OBOP
 4582 07034 1165 IPOINT, OBLOW /STICK A CHARACTER IN THE BUFFER.
 4583 07035 4243 JMS OUTIT
 4584 07036 6001 IGN
 4585 07037 7422 PUTCDF, HLT /SEND IT OUT
 4586 07040 5600 JMP I PUTER /RESTORE INTERRUPTS.
 4587
 4588
 4589 07041 0000 OPUTC, 0 /USER'S CORRECT CDF
 4590 07042 0000 CCOUNT, 0
 4591
 4592
 4593 07043 2220 OUTIT, 0 /FLAG STILL UP, EXIT.
 4594 07044 1303 TAD OFLAG
 4595 07045 7640 SZA CLA
 4596 07046 5643 JMS I OUTIT
 4597 07247 1222 TAD CCOUNT
 4598 07050 7450 SNA
 4599 07051 5643 JMS I OUTIT
 4600 07252 1314 TAD 07777 /NO CHARS TO GO, SO WE WILL.
 4601 07253 3242 DCA CCOUNT
 4602 07254 1132 TAD CCDEV
 4603 07255 1273 TAD OPOTAB
 4604 07256 3303 DCA OFLAG
 4605 07257 1700 TAD I OFLAG
 4606 07260 3262 DCA .#2
 4607 07061 1665 TAD I OPOINT
 4608 07062 7402 HLT
 4609 07063 7200 CLA /AND HALT.
 /AFTER PRINTING THE CHARACTER,

4610 07064 4301 JMS OBOP /WE SHALL INCREMENT THE POINTER.
 4611 07065 1165 OPOINT, OBLOW
 4612 07266 5643 JMP I OUTIT /AND EXIT.
 4613
 4614 07267 7200 OPNUL, CLA /RESET OFLAG
 4615 07072 3320 DCA OFLAG
 4616 07071 4542 JMS I DELOUT
 4617 07072 5643 JMP I OUTIT /DELETE ANY STRAY CHARACTERS IN THE BUFFER.
 4618
 4619 07073 7074 OPOTAB, .#1 /AND RETURN NOW.
 4620 07274 5267 JMP OPNUL /NUL DEVICE (NO ECHOING)
 4621 07275 6046 TLS
 4622 07276 6026 PLS
 4623 07277 6666 LLS
 4624
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 4627 07120 0000 OFLAG, 0
 4628
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 4631 07101 0200 OBOP, 0
 4632 07102 1701 TAD I OBOP
 4633 07103 1312 TAD OTST1
 4634 07104 7452 SNA
 4635 07105 1315 TAD OFLOW
 4636 07106 1313 TAD OCOR
 4637 07107 3701 DCA I OBOP
 4638 07112 2301 ISZ OBOP
 4639 07111 5701 JMP I OBOP
 4640
 4641
 4642 07112 6601 OTST1, -OBHIGH
 4643 07113 1200 OCOR, OBHIGH+1
 4644
 4645 07114 7777 07777, 7777
 4646
 4647 07115 7765 OFLOW, -OBHIGH=1*OBLOW
 4648 7115 OCHLIM=OFLOW
 4649
 4650
 4651 07116 3003 RESET1, 0
 4652 07117 7201 CLA IAC
 4653 07120 3131 DCA OUTDEV
 4654 07121 7201 CLA IAC
 4655 07122 3130 DCA OUTD2
 4656 07123 7201 CLA IAC
 4657 07124 3127 DCA INDEV
 4658 07125 3133 DCA CNTLO
 4659 07126 3134 DCA NOINT
 4660 07127 6201 CDF #
 4661 07132 3756 DCA I CHRCHAR
 4662 07131 3762 DCA I SINCHAR
 4663 07132 3757 DCA I PBUSY
 4664 07133 3760 DCA I PPXRA
 /CLEAR NO-INTERRUPT FLAG.
 /RESET DATA FIELD TO HERE.
 /CLEAR ALL INPUT FLAGS.
 /AND ALSO THE BUSY FLAG.
 /RESET NULL AFTER C.R. FLAG.



```

4685
4686
4687 IFNZERO MACHINE<
4688 CIF CDF 10      /PREPARE TO RESET CLOCK,
4689 JMS I LLLLUUU    /RESET CLOCK NOW (OR RATHER A-D BUFFER),
4690 >
4691 IFZERO MACHINE<
4692 07134 6211
4693 07135 6021
4694 ION
4695 >
4696 07136 6665      6665
4697 07137 5716      JMP I RESET1      /TELL LPT IT'S OK TO INTERRUPT NOW,
4698
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4727 07141 0200  RESET2, 0
4728 07142 4537      JMS I  PRESET
4729 07143 4542      JMS I  DELOUT
4730 07144 3520      DCA   OFLAG
4731 07145 5741      JMP I  RESET2
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4771 07146 2000  OUTDEL, 0
4772 07147 3242      DCA   OCOUNT
4773 07150 1355      TAD   OPRST
4774 07151 3265      DCA   OPOINT
4775 07152 1355      TAD   OPRST
4776 07153 3234      DCA   IPPOINT
4777 07154 5746      JMP I  OUTDEL
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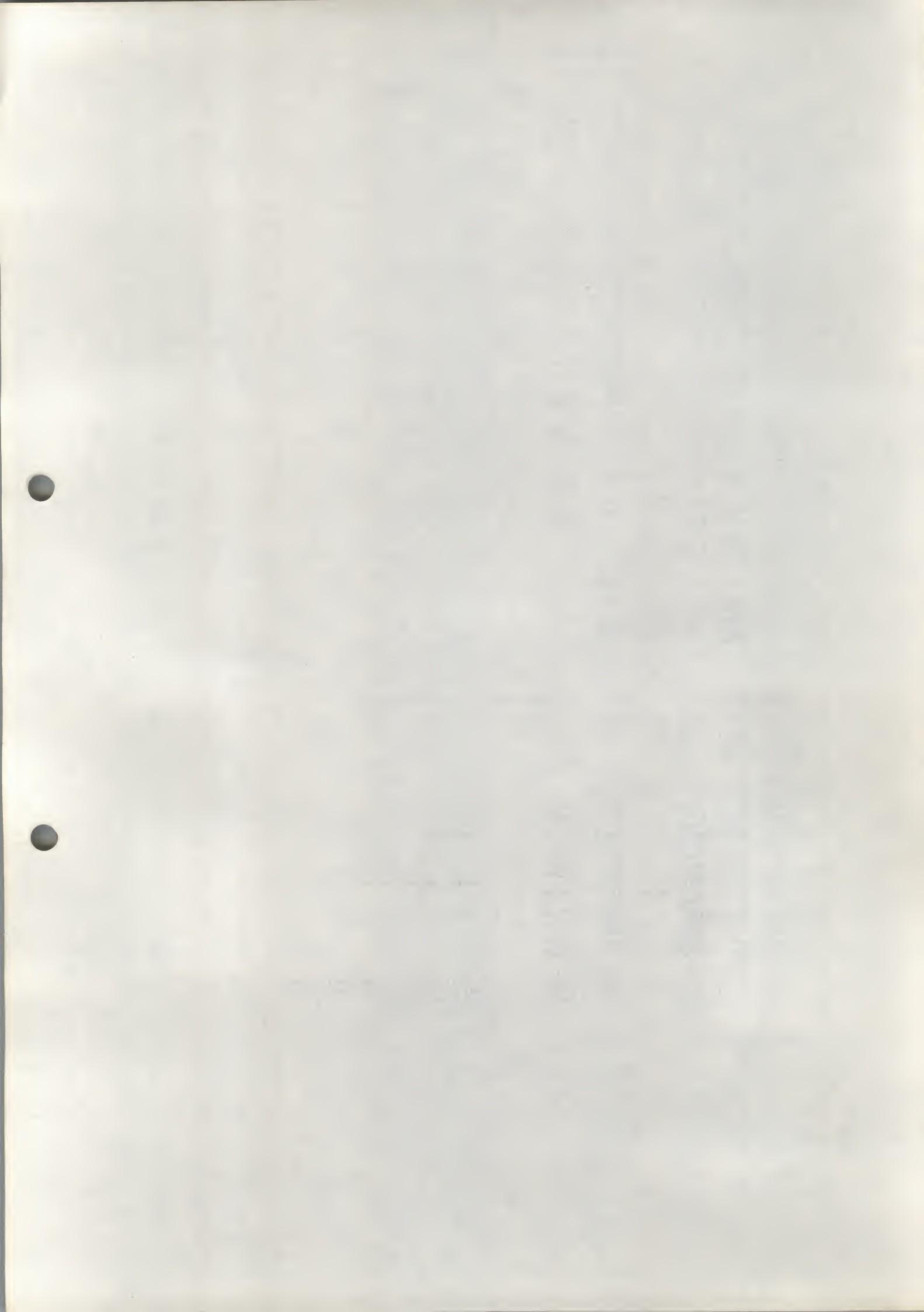
4775 07205 7450      SNA
4776 07206 5203      JMP   GETCH+2
4777 07207 0027      AND   0177
4778 07210 3254      DCA   GTEMP
4779 07211 3255      DCA   INCHAR
4780 07212 3256      DCA   HRCHAR
4781 07213 1135      TAD   RB3WCH
4782 07214 7650      SNA CLA
4783 07215 5224      JMP   GRB
4784 07216 1254      TAD   GTEMP
4785 07217 1260      TAD   07801
4786 07220 7652      S2A CLA
4787 07221 5224      JMP   S2B
4788 07222 1261      GROELA, TAD   C137
4789 07223 5601      JMP I  GETCH
4790
4791 07224 1254      GRB,   TAD   GTEMP
4792 07225 1255      TAD   07770
4793 07226 7450      SNA
4794 07227 5222      JMP   GROELA
4795 07232 1262      TAD   07612
4796 07231 7450      SNA
4797 07232 5247      JMP   GALT
4798 07233 1266      TAD   0143
4799 07234 7650      SNA CLA
4800 07235 5247      JMP   GALT
4801 07236 1254      TAD   GTEMP
4802 07237 1263      TAD   07640C
4803 07240 7510      SPA
4804 07241 5251      JMP   GOUT
4805 07242 1264      TAD   07746
4806 07243 7500      SMA
4807 07244 5251      JMP   GOUT
4808 07245 1265      TAD   0132
4809 07246 5601      JMP I  GETCH
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4812 07247 1267      GALT,   TAD   0175
4813 07250 5601      JMP I  GETCH
4814
4815 07251 7200      GOUT,   CLA
4816 07252 1254      TAD   GTEMP
4817 07253 5601      JMP I  GETCH
4818
4819 07254 0000      GTEMP,  0
4820 07255 0000      INCHAR, 0
4821 07256 0000      HRCHAR, 0
4822
4823 07257 6713      CBIDLE, BIDLE
4824
4825 07260 7601      07601, 7601
4826 07261 0137      0137, 137
4827 07262 7612      07612, 7612
4828 07263 7640      07640C, 7640
4829 07264 7746      07746, 7746

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4830 07265 0132 0132, 132
4831 07266 0143 0143, 143
4832 07267 0175 0175, 175
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4837 07270 0000 0WHERE, 0
4838 07271 7240      CLA CMA
4839 07272 1127      TAD   INDEV
4840 07273 2270      ISZ   GWHERE
4841 07274 7750      SPA SNA CLA
4842 07275 5670      JMP I  GWHERE /INPUT=TTY
4843
4844 07276 1264      TAD   07746
4845 07277 3254      DCA   GTEMP
4846 07300 3256      DCA   HRCHAR
4847 07301 6014      RFC
4848 07322 1256      HRLOP, TAD   HRCHAR
4849 07303 7440      SZA
4850 07304 5321      JMP   HFOUND /GOT IT.
4851 07305 2255      ISZ   INCHAR
4852 07306 5322      JMP   HRLOP
4853 07307 2254      ISZ   GTEMP
4854 07310 5322      JMP   HRLOP
4855
4856 07311 7201      CLA IAC
4857 07312 3131      DCA   OUTDEV /RESET OUTPUT DEVICE FOR A SECOND.
4858 07313 3133      DCA   CNTLO /RESET THE CONTROL "ON" SWITCH ALSO.
4859 07314 4514      JMS I  PPRINTXT /GIVE THE MESSAGE.

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4860 07315 7323 HRMES
4861 07316 7201 CLA IAC
4862 07317 3127 DCA INDEV
4863 27320 5670 JMP I GWHERE
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4865 07321 2270 HFOUND, ISZ GWHERE
4866 07322 5670 JMP I GWHERE
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4870 07323 3724 HRMES, TEXT "TTY"
4871 07324 2431
4872 07325 3720
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4877 07326 0200 CONT, 0
4878 27327 6201 CDF 0
4879 27330 3742 DCA I CCXRA
4880 27331 1743 COWTLP, TAD I COWTFP
4881 27332 6214 CDF 12
4882 07333 7650 SNA CLA
4883 27334 5340 JMP COWTO
4884 07335 4744 JMS I COWTH
4885 07336 6221 CDF 0
4886 07337 5331 JMP COWTLP
4887 07340 3133 COWTO, DCA CNTLC
4888 07341 5726 JMP I COWT
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4893 07342 2776 CCXRA, PUTXRA
4894 07343 7102 COWTFP, OFLAG
4895 07344 6713 COWTH, BIDLE
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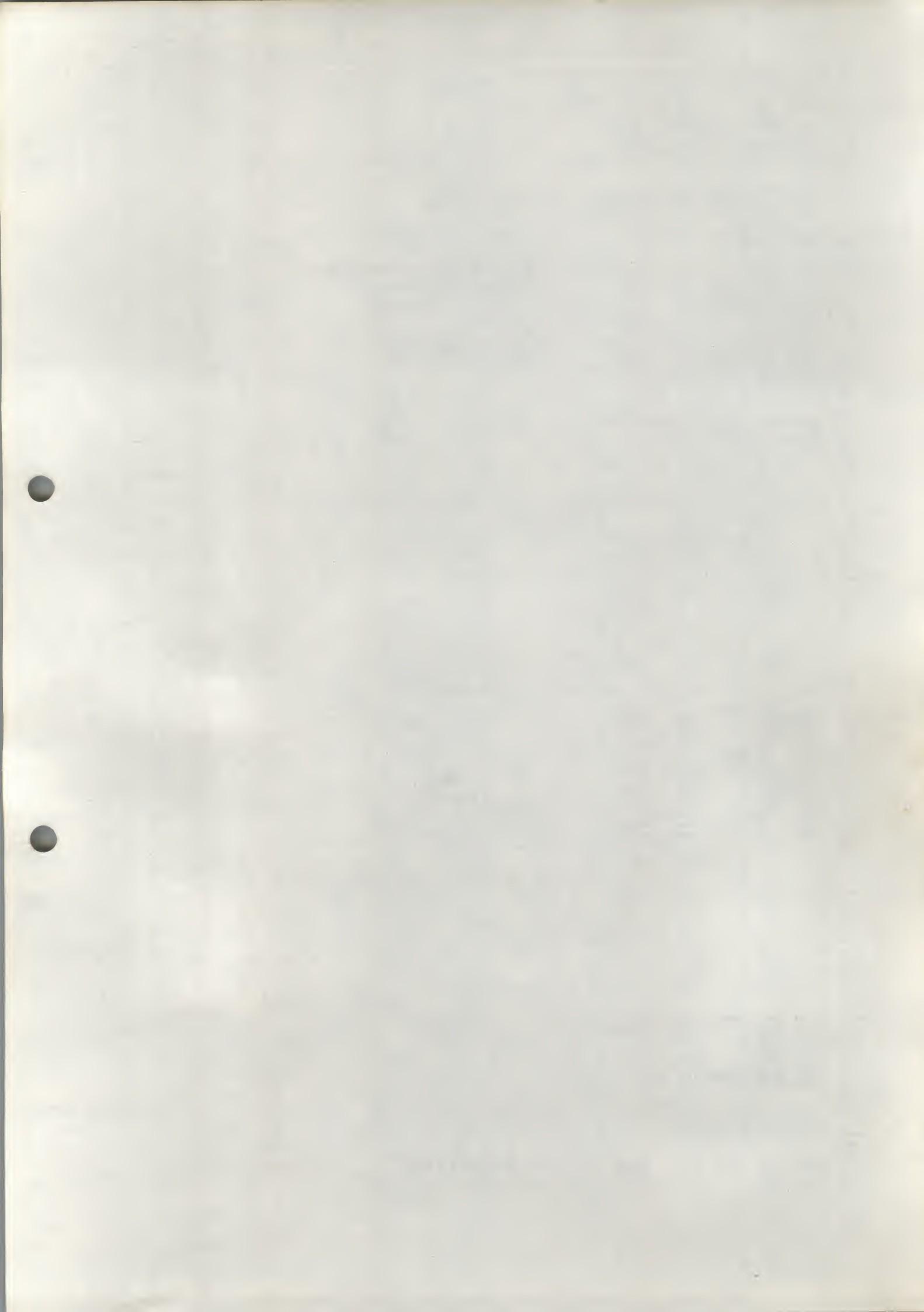
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4915 07345 2200 XGMUST, 0
4916 07346 4177 JMS GETWD
4917 07347 1345 TAD XGMUST
4918 07350 3352 DCA XMUST
4919 07351 5353 JMP XMUST+1
4920 07352 0200 XMUST, 0
4921 07353 1452 TAD I WORD
4922 07354 6201 CDF 0
4923 07355 1752 TAD I XMUST
4924 07356 6211 CDF 10
4925 07357 2352 ISZ XMUST
4926 07360 7650 SNA CLA
4927 07361 5752 JMP I XMUST
4928 07362 5520 JMP I PSXERR
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4947 07363 4077 ARGERR, JMS I PERROR
4948 07364 2122 TEXT "ARGUMENT"
4949 07365 0725
4950 07366 1505
4951 07367 1624
4952 07370 0220
4953 07371 5662 DOTZERO,TEXT ".0"
4954 07372 2220
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4962 07373 4077 RTERR, JMS I PERROR
4963 07374 2201 TEXT "RATE"
4964 07375 2405
4965 07376 2234
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/GIVE RATE ERROR FOR CLOCK.



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5023 07420 1136 PLOT,
5004 07421 7640 TAD DISB
5025 07422 5220 SZA CLA /GET BUFFER ADDRESS.
5026 07423 1240 JHP DBGOT /IS THERE ONE?
5027 07424 4544 TAD PASSUME
5028 07425 7410 JMS I SPLFT /GET ASSUMED LENGTH.
5029 07426 5755 SKP /ROOM LEFT TO FIT IT IN.
5030 07427 1023 JHP I NPSERR
5031 07428 3311 TAD ARRLOC
5032 07429 1023 DCA DLAST
5033 07430 1240 TAD ARRLOC
5034 07431 3203 DCA PASSUME
5035 07432 7240 DCA ARRLOC
5036 07433 1023 CLA CMA
5037 07434 3312 TAD ARRLOC
5038 07435 4314 DCA DLAST
5039 07436 3711 JMS PLOTB
5040 07437 5642 DCA I DINP
5041 07438 3313 DBUGOT, DCA DBAD
5042 07439 4177 JMS GETWD
5043 07440 4681 JMS I PMEVAL
5044 07441 4435 FENTER
5045 07442 6217 FMP+FSHIFT+FWD=.

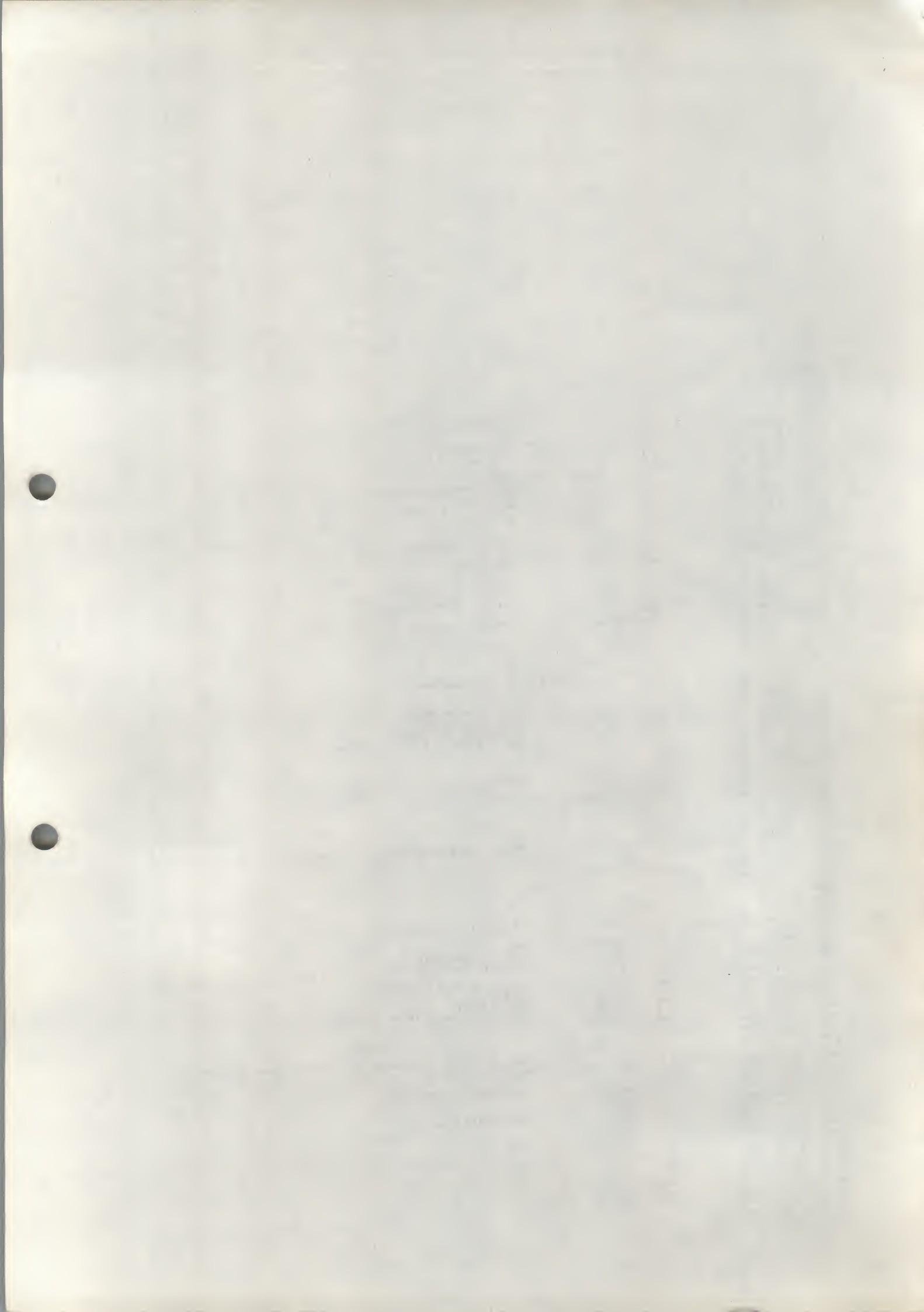
IFZERO MACHINE<
NOPUNCH>

/GET LAST WORD OF OUR BUFFER NOW.
/AND GO.
/FIGURE OUT
/TELL IT POINT IS ON SCREEN.
/GET NEXT SYNTACTICAL ELEMENT.
/EVALUATE OUR EXPRESSION.
/CORRECT NUMBER FOR SYMETRICAL SCREEN.

5025 07425 2220 FEXIT
5026 07426 4326 JMS DBLIT
5027 07427 4641 JMS I PMEVAL
5028 07428 4326 JMS DBLIT
5029 07429 1313 TAD DBAO
5030 07430 7041 CIA
5031 07431 1311 TAD DINP
5032 07432 3311 DCA DINP
5033 07433 7330 CLA CLL CMH RAR
5034 07434 3711 DCA I DINP
5035 07435 5642 JMP I PDEVCON
5036
5037 07440 1750 PASSUME,1750
5038 07441 7415 PMEVAL, MEVAL
5039 07442 7176 PDEVCON,DEVCON
5040 07443 2227 FSHIFT, 2007/1600/2000
5041 07444 1603
5042 07445 0020 /MAGIC CONSTANT FOR SYMETRICAL SCREEN.

5043
5044
5045
5046
5047
5048 07446 1136 USE,
5049 07447 7640 TAD DISB
5050 07450 5661 SZA CLA /IS DISPLAY BUFFER ASSIGNED.
5051 07451 4262 JMP I USKIPIT
5052 07452 1020 JMS GETARY
5053 07453 3311 TAD AC1
5054 07454 1017 DCA DLAST
5055 07455 3312 TAD AC2
5056 07456 4314 DCA DLAST
5057 07457 4177 JMS PLOTB
5058 07458 5642 JMS GETWD
5059 07460 2467 JMP I PDEVCON
5060
5061
5062 07462 0020 GETARY, 0 /THIS ROUTINE GETS THE FIRST AND LAST LOCATIONS OF AN ARRAY.
5063 07463 4571 GET+MUSTBE
5064 07464 7220 7020 /MUST BE A VARIABLE.
5065 07465 1250 TAD WORD
5066 07466 3320 DCA UVP
5067 07467 2252 ISZ WORD
5068 07468 1452 TAD I WORD
5069 07469 7221 IAC WORD
5070 07470 3220 DCA AC1
5071 07471 7221 ISZ WORD
5072 07472 2050 TAD I WORD
5073 07473 3320 DCA UIP
5074 07474 2050 ISZ WORD
5075 07475 1450 TAD I WORD
5076 07476 3320 DCA U2P
5077 07477 4502 JMS I PGETADD
5078 07478 2020 UVP,
5079 07479 0020 U1P,

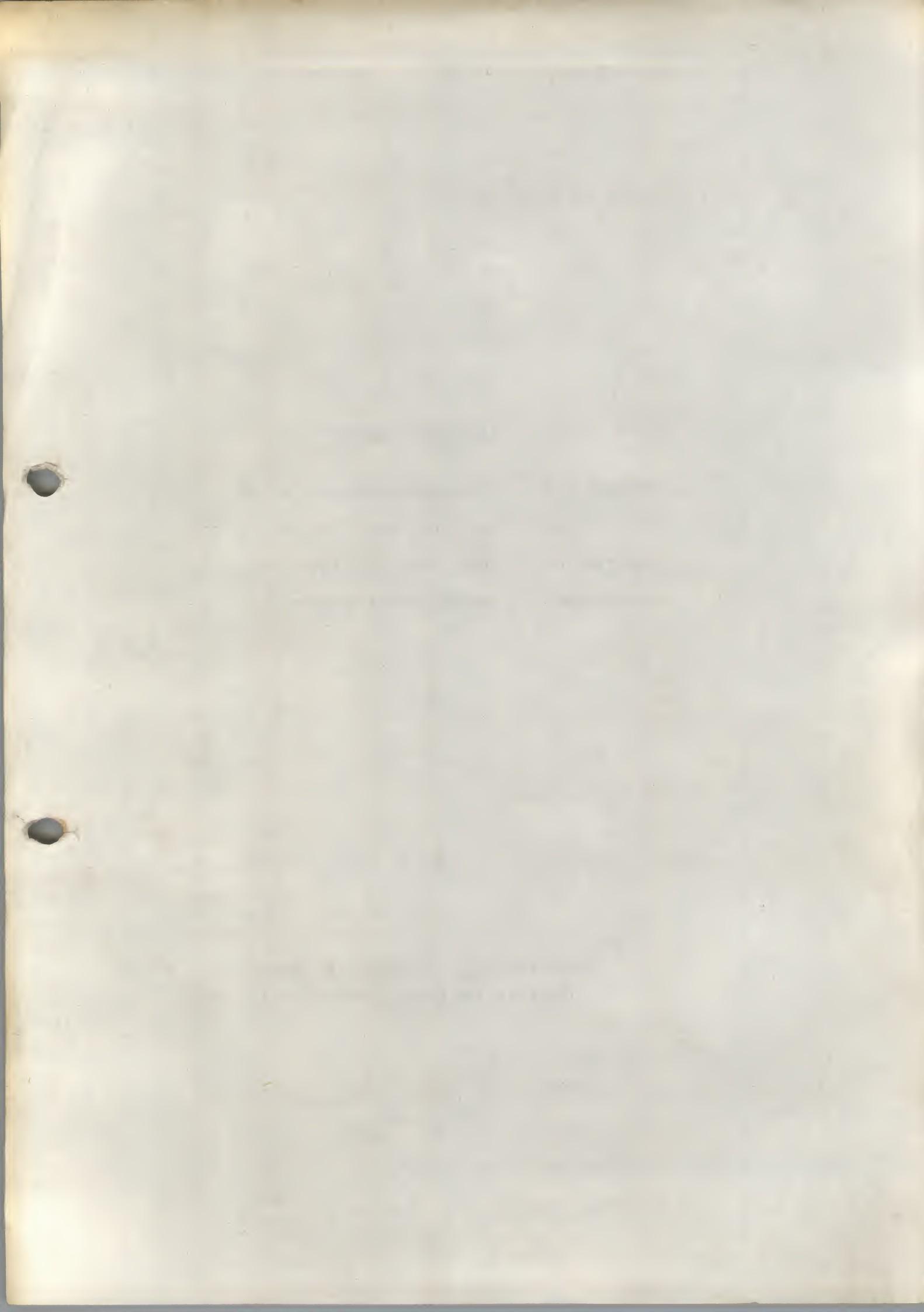
/GET FIRST FREE LOCATION
/GET SECOND FREE LOCATION
/SAVE AWAY.
/SET UP STUFF.
/GET NEXT ELEMENT AFTER VARTABLE.
/GET POINTER NOW.
/SAVE AWAY.



IDENTIFICATION

PRODUCT CODE	DEC-08-LBASA-A1-LA
PRODUCT NAME	LISTING OF 8K BASIC R/T
DATE CREATED	DECEMBER 13, 1973
MAINTAINER	PDP-8 DEVELOPMENT

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DIGITAL EQUIPMENT CORPORATION



/BASIC.LBE

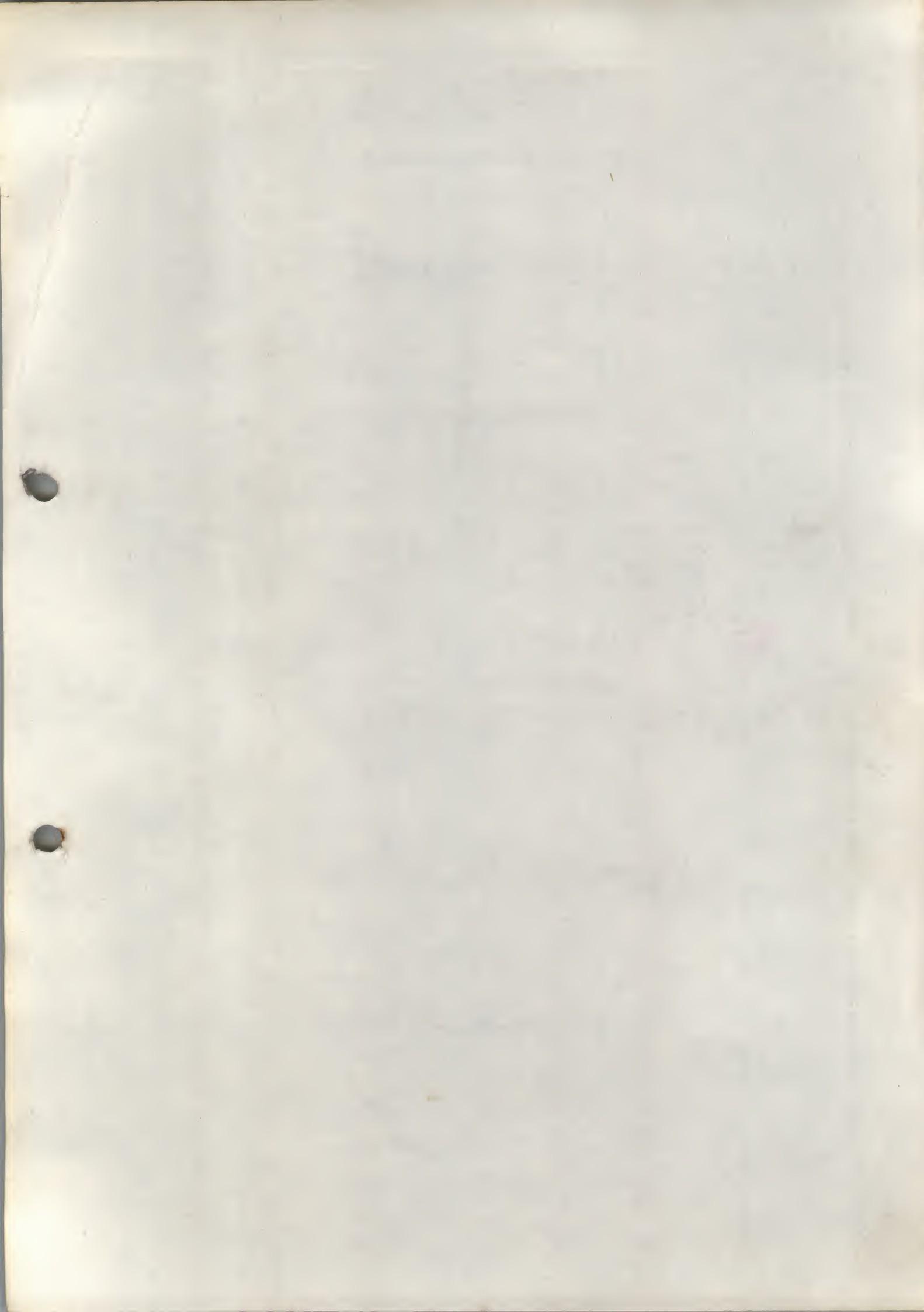
PAL8-V9 / / PAGE 1

1 /
2 /
3 /
4 /
5 / LAB-B/E BASIC
6 /
7 / COPYRIGHT 1971, DIGITAL EQUIPMENT CORPORATION
8 / MAYNARD, MASS. (01754)
9 /
10 / WRITTEN BY JACK BURNESS
11 /
12 /
13 /
14 /
15 /
16 /
17 / THIS BASIC IS A COMBINATION OF LAB-B/E BASIC
18 / AND 8K-BASIC FOR THE PDP-8. TO CREATE IT
19 / FOR THE LAB-B/E SET "MACHINE=1", TO CREATE IT FOR
20 / THE PDP-8 SET "MACHINE=0".
21 /
22 0200 MACHINE=0
23
24
25
26
27
28
29
30
31
32
33
34 / THIS CODE OVERLAYS THE BINARY LOADER IN FIELD
35 / ONE TO MAKE LAB-B/E BASIC SELF STARTING.
36
37
38 IFNZRO MACHINE=4
39
40 FIELD 1
41
42 *7700
43
44 JMP I UGETWD
45
46 *6200
47
48 DCA UTEMP
49 TAD INTMLT
50 OCA I INTPLC
51 TAD UTEMP
52 SZA
53 JMP I INTPLC
54 CIF CDF 0
55

/BASIC.LBE

PAL8-V9 / / PAGE 1-1

56 JMP I .+1
57 START
58
59 INTMLT, HLT
60 INTPLC, 7700
61
62
63
64
65
66
67
68 /BASIC4.52
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89 0200 FIELD 0 /TO HELP BINARY LOADER IN CASE HE BLOWS IT.
90
91
92
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110



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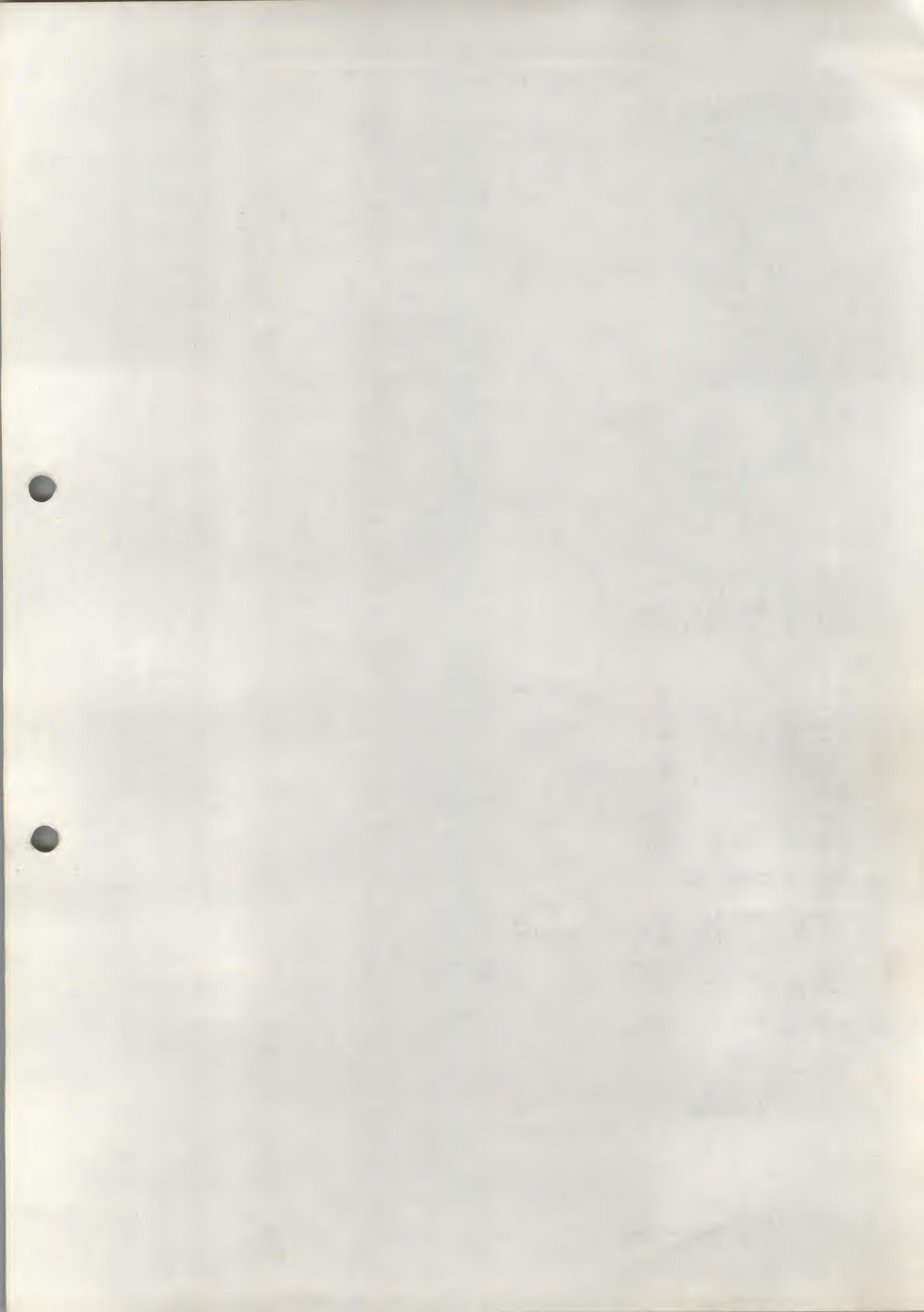
5000 07504 0000 U2P, 0
5001 07505 7326 CLA CLL CML RTL /+2
5002 07506 1067 TAD ADDRESS
5003 07507 3017 DCA AC2
5004 07510 5682 JMP I GETARY
5005
5006 07511 0000 DLAST, 0
5007 7511 DINP=DLAST
5008 07512 0000 DCLAST, 0
5009 07513 2020 DBAD, 0
5010
5011
5012
5013
5014
5015
5016
5017
5018 07514 2000 PLOTB, 0
5019 07515 7240 CLA CMA
5020 07516 1311 TAD DLAST
5021 07517 3136 DCA DISB
5022 07520 1325 TAD 04001
5023 07521 3712 DCA I DOLAST
5024 07522 7330 CLA CLL CML RAR
5025 07523 3711 DCA I DLAST
5026 07524 5714 JMP I PLOTB
5027
5028 07525 4001 04001, 4001
5029
5030
5031
5032
5033
5034
5035
5036
5037
5038 07526 0000 DBLIT, 0
5039 07527 1024 TAD ACS
5040 07530 7700 SMA CLA
5041 07531 5335 JMP .#4
5042 07532 7326 DBBAD, CLA CLL CML RTL
5043 07533 3313 DCA DBAD
5044 07534 5347 JMP DBISRT

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5135 07535 1025 TAD ACE
5136 07536 1354 TAD 07577B
5137 07537 7700 SMA CLA
5138 07540 5332 JMP DBBAD
5139 07541 1025 TAD ACE
5140 07542 1065 TAD 012
5141 07543 3025 DCA ACE
5142 07544 4526 JMS I PFIX
5143 07545 7200 CLA
5144 07546 1016 TAD AC3
5145 07547 4356 DBISRT, JMS DBPUT
5146 07550 7330 CLA CLL CML RAR
5147 07551 2311 ISZ DINP
5148 07552 4356 JMS DBPUT
5149 07553 5726 JMP I DBLIT
5150
5151
5152 07554 7577 07577B, 7577
5153 07555 0370 NPSPERR, SPACERR
5154
5155
5156 07556 0000 DBPUT, 0
5157 07557 3017 DCA AC2
5158 07560 7350 CLA CLL CMA RAR /-4001=3777
5159 07561 1711 TAD I DINP
5160 07562 7650 SNA CLA
5161 07563 5755 JMP I NPSPERR
5162 07564 1017 TAD AC2 /NO ROOM IN BUFFER, BOMB HIM.
5163 07565 3711 DCA I DINP
5164 07566 5756 JMP I DBPUT
5165
5166
5167 07567 4077 UUDATA, JMS I PERROR
5168 07570 0155 TEXT "A-D FULL"
5169 07571 0440
5170 07572 0625
5171 07573 1414
5172 07574 0000
5173
5174
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5188
5189 ENPUNCH
IFNZRO MACHINE<

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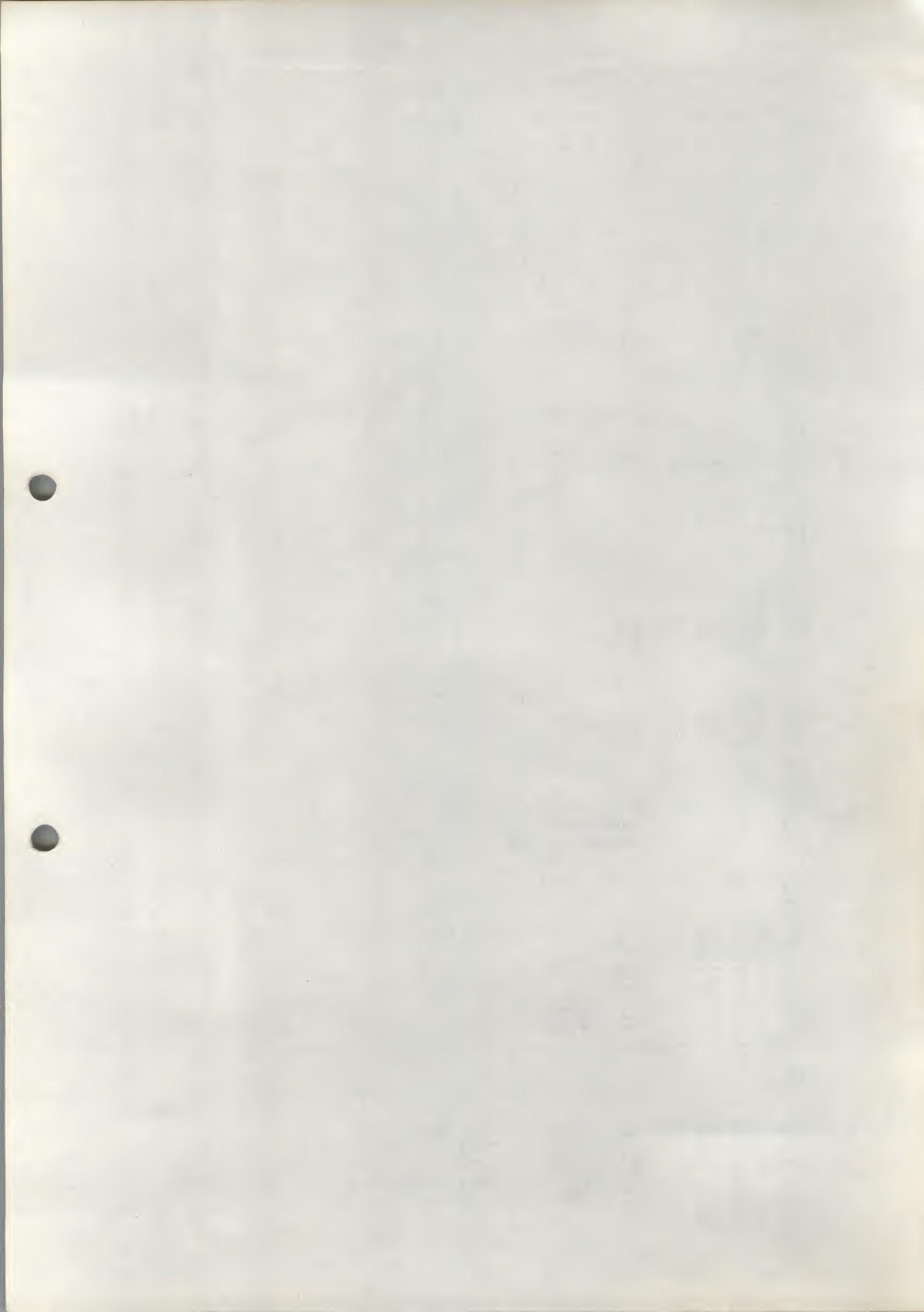
5192          PAGE
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5195          IFZERO MACHINE<
5196    7400  *PLDT>
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5205
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5208
5209  07400  0000  SETUP,  0
5210  07401  1025  TAD    PSYMTAB
5211  07402  3056  DCA    EPTR
5212  07403  1036  TAD    NSYMTAB
5213  07404  3057  DCA    FPTR
5214  07405  3136  DCA    DISB
5215  07406  5600  JMP I  SETUP
5216
5217
5218
5219
5220
5221          IFNZRO MACHINE<
5222  CDEVCOM,DEVCOM
5223
5224
5225          IFZERO MACHINE<
5226  0000  CDEVCOM#0
5227
5228
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5241
5242  07407  0000  ISET,  0
5243  07410  6050  DILC
5244  07411  6055  DIXY

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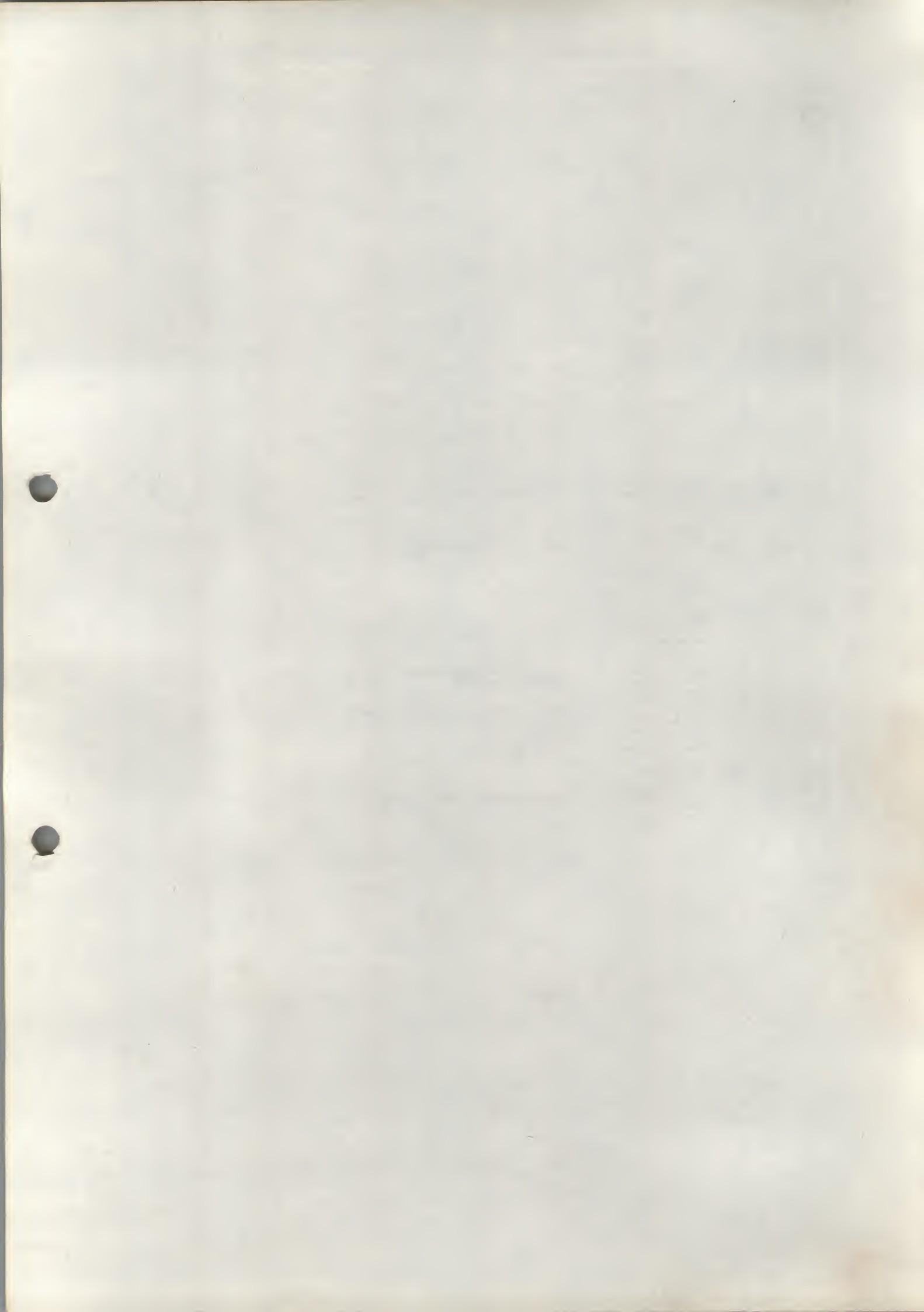
5245  07412  4614  JMS I  IIXR
5246  07413  5607  JMP I  ISET
5247  07414  7141  IIXR,  RESET2
5248
5249
5250
5251
5252
5253
5254
5255
5256          IFZERO MACHINE<
5257
5258  NOPUNCH>
5259
5260
5261
5262
5263
5264
5265
5266  07415  0000  MEVAL,  0
5267  07416  4566  ISIT
5268  07417  2020  2000
5269  07420  7410  SKP
5270  07421  5500  JMP I  PSXERR
5271  07422  4566  ISIT
5272  07423  3763  3763
5273  07424  5227  JMP .+3
5274  07425  4177  JMS GETWD
5275  07426  5216  JMP MEVAL#1
5276  07427  1215  TAD MEVAL
5277  07430  5631  JMP I  MEVALGO
5278
5279  07431  1007  MEVALGO,EVALGO
5280
5281
5282
5283
5284
5285
5286
5287  07432  1136  CLEAR,  TAD  DISB
5288  07433  7450  SNA
5289  07434  5400  JMP I  CDEVCOM
5290  07435  3013  DCA INDEX1
5291  07436  7330  CLA CLL CML RAR /4000
5292  07437  3413  DCA I  INDEX1
5293  07440  6201  CDF 0
5294  07441  1013  TAD INDEX1
5295  07442  3645  DCA I  COINP
5296  07443  6211  CDF 10
5297  07444  5400  JMP I  CDEVCOM
5298
5299

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5320 07445 7511 EDINP, DINP
 5321
 5322
 5323
 5324
 5325 07446 0202 LLLJMS, 0
 5326 07447 1646 TAD I LLLJMS
 5327 07450 2246 ISZ LLLJMS
 5328 07451 3257 DCA LLLJMP
 5329 07452 4657 JMS I LLLJMP
 5330 07453 7410 SKP
 /IN CASE OF SKIPPING RETURN.

5311 07454 2246 ISZ LLLJMS
 5312 07455 6213 CIF CDF 18
 5313 07456 5646 JMP I LLLJMS
 5314
 5315
 5316 07457 0082 LLLJMP, 0
 5317 07460 1657 /TAD I LLLJMP
 5318 07461 3257 DCA LLLJMP
 5319 07462 5657 JMP I LLLJMP
 5320
 5321
 5322
 5323
 5324
 5325
 5326
 5327
 5328
 5329
 5330
 5331 07463 7326 DELAY, CLA CLL CML RTL /*2
 5332 07464 3220 DCA NDELAY /SET UP DEALY TIME (ONE TIME THROUGH).
 5333
 5334
 5335
 5336 IFNZRO MACHINE<
 5337 NULJOB, TAD DISB /SET UP AUTO INDEX REGISTER NOW.
 5338 >
 5339
 5340 IFZERO MACHINE<
 5341 ENPUNCH
 5342 7415 #HEVAL
 5343
 5344 07415 7201 NULJOB, IAC
 5345 07416 5215 JMP NULJOB
 5346
 5347 NOPUNCH>
 5348
 5349
 5350 07417 3015 DCA DISAUTO /WITH POINTER TO OUR BUFFER.
 5351 07420 1220 TAD NDELAY /UPDATE DELAY WORD.
 5352 07421 7110 CLL RAR
 5353 07422 3220 DCA NDELAY
 5354 07423 7430 SZL /ARE WE FINISHED WITH DELAY COMMAND?
 5355 07424 5400 JMP I CDEVCOM /YEP, EXIT NOW.
 5356 07425 1136 TAD DISB /GET OUR WORD NOW.
 5357 07426 7650 SNA CLA /ZERO?
 5358 07427 5215 JMP NULJOB /YEP, WAIT AWHILE.
 5359
 5360 07430 1415 NULLOP, TAD I DISAUTO
 5361 07431 7510 SPA
 5362 07432 5254 JMP NULEMD
 5363 07433 1256 TAD 07002C /BRING DOWN INTO RANGE OF SCREEN.
 5364 07434 6252 DISD
 5365 07435 5234 JMP .1



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5346  07436  6053      DILX
5347  07437  7200      CLA
5348  07438  1415      TAD I  DISAUTO
5349  07441  7110      SPA.
5378  07442  5254      JMP    NULCMD
5371  07443  1256      TAD   07088C
5372  07444  6752      DISD
5373  07445  5244      JNP   .+1
5374  07446  6254      DILY
5375  07447  7203      CLA
5376  07448  6254      DISD
5377  07449  6113      JNP   .+1
5378  07450  6113      DILY
5379  07451  6113      JNP   .+1
5380  07452  6113      DILY
5381  07453  6113      JNP   NULLCP
5382  07454  7200      NULCMD, CLA
5383  07455  5215      JNP   NULJOB
5384
5385  07456  7200  07088C, 7000
5386  07457  6762  NINTECOF, INTECOF
5387
5388
5389
5390
5391
5392
5393
5394
5395
5396
5397
5398
5399
5400
5401  07460  4477  UUNLOAD, JMS I  PERROR
5402  07461  1617      TEXT  "NO A=0"
5403  07462  4021
5404  07463  5624
5405  07464  8020
5406
5407
5408  07465  8030  CCINTK, 0
5409  07466  6131      6131
5410  07467  5665      JMP I  CCINTK
5411  07470  6213      CIF CDF 10
5412  07471  5672      JMP I  .+1
5413  07472  0175      CLOCKI
5414
5415
5416
5417
5418
5419  7473      REALTI=,
5420  7473      SETRAT=,

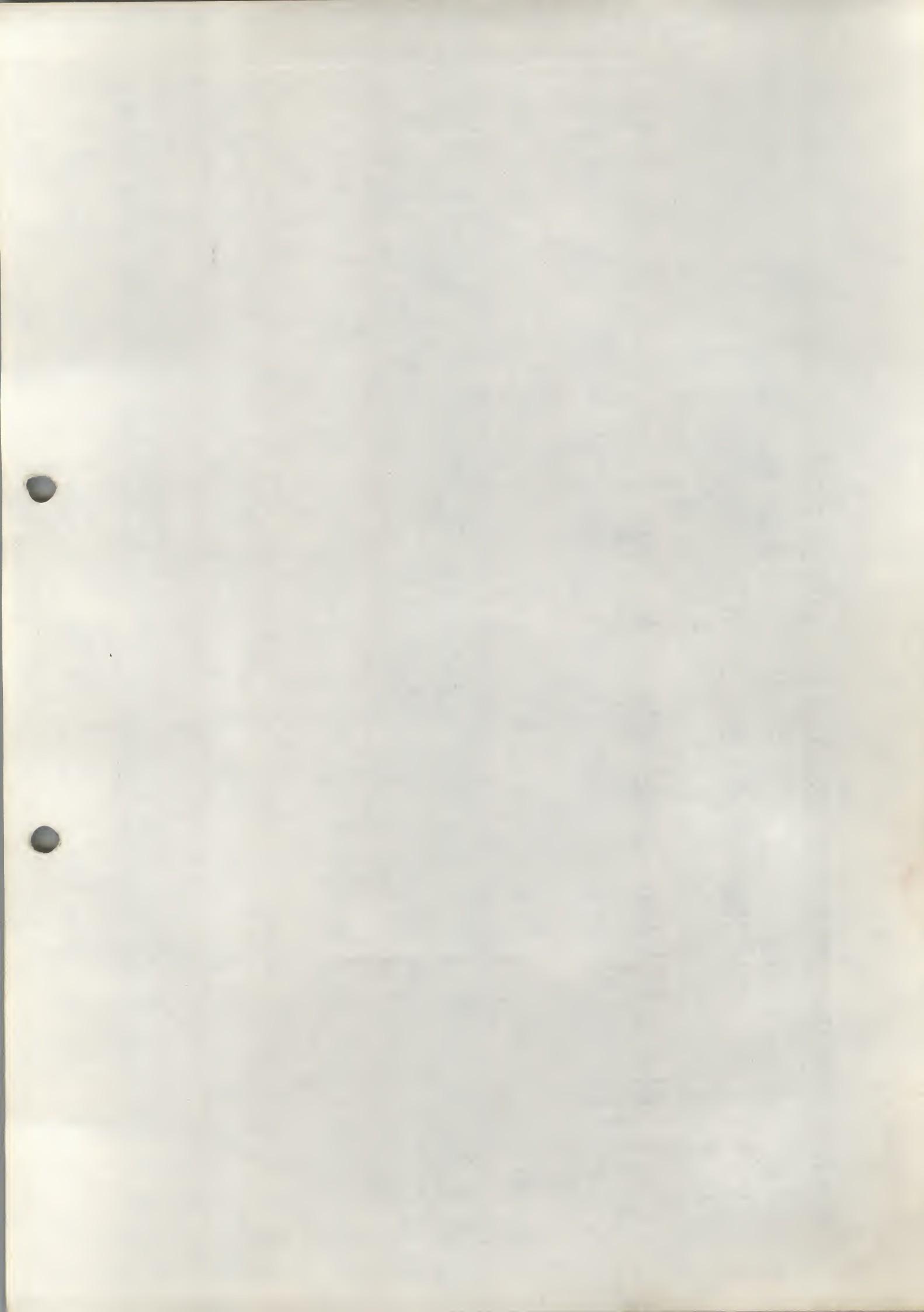
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5421  7473      SETCLC=,
5422  7473      WAITC=,
5423  7473      WAIT=,
5424  7473      REJECT=,
5425  7473      ACCEPT=,
5426
5427  07473  1450      TAD I  WORD
5428  07474  6213      CDF CIF 10
5429  07475  5676      JMP I  .+1
5430  07476  0731      UPCCMD0
5431
5432
5433
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5438
5439
5440  7477      TIM=,
5441  7477      CLC=,
5442  7477      CLS=,
5443  7477      ADC=,
5444  7477      ADB=,
5445
5446  07477  0220      0
5447  07500  1436      TAD I  PDL
5448  07501  6213      CIF CDF 10
5449  07502  4724      JMS I  .+2
5450  07503  5677      JMP I  ADB
5451  07504  0747      UPFFUN
5452
5453
5454
5455
5456
5457
5458
5459
5460      ENPUNCH
5461
5462      IFZERO MACHINE<
5463
5464  7417      *NULJOB+2>
5465
5466
5467  07417  3762  TSTFX, BEGFIX
5468
5469
5470
5471
5472  07420  0230  NODELAY, 0
5473
5474
5475

```

/RECALL CORRECT FUNCTION NUMBER (IT'S ON THE STACK)



```

5476
5477 07421 0802 TST, 0
5478 07422 4617 JHS I TSTFX
5479 07423 6201 CDF 0
5480 07424 1631 TAD I TSTP
5481 07425 6211 CDF 10
5482 07426 3216 DCA AC3
5483 07427 4546 JMS I PANORM
5484 07430 5621 JMP I TST
5485
5486 07431 7255 TSTP, INCHAR
5487
5488
5489
5490
5491
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5517 0001 FIELD 1
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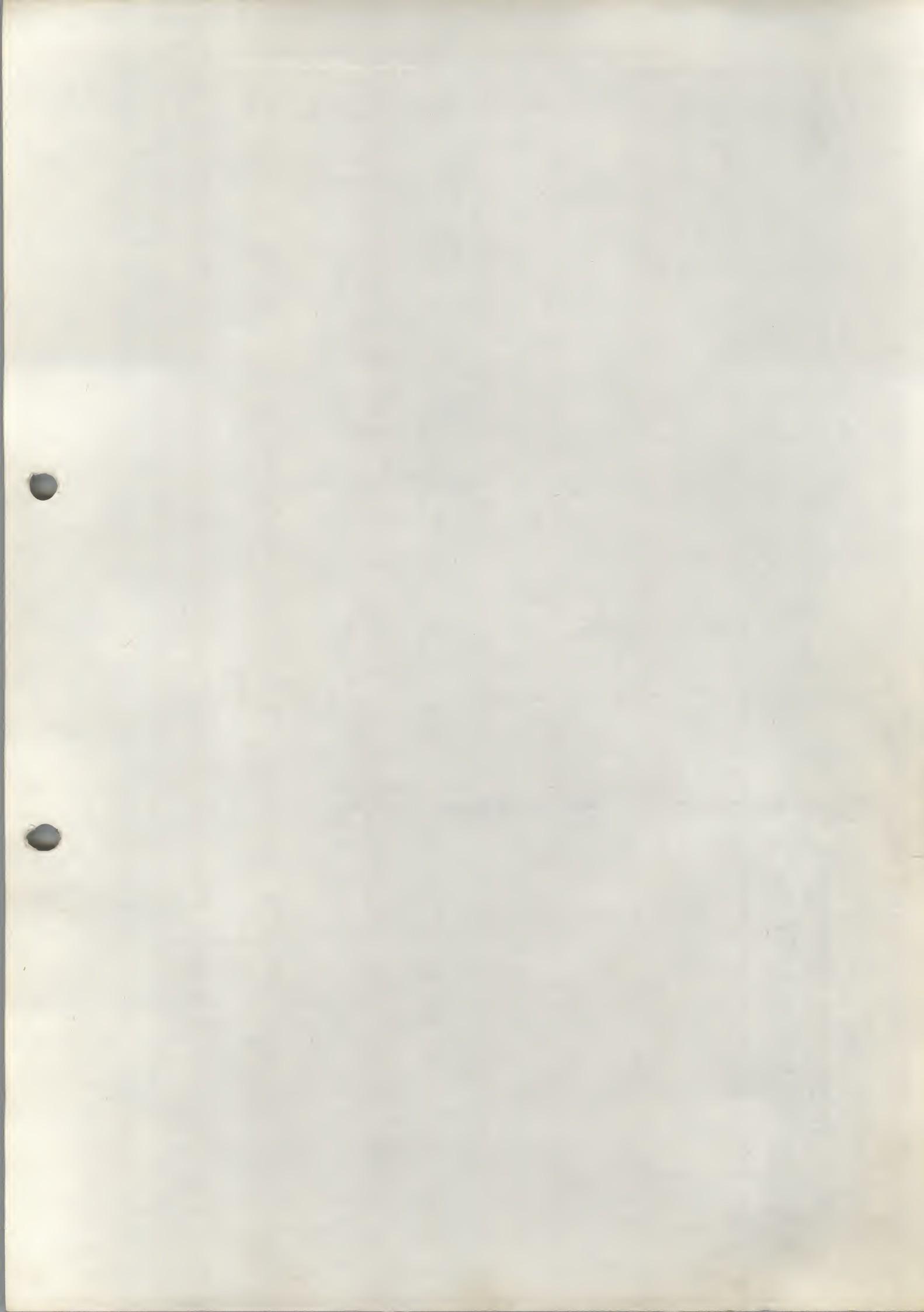
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author date

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5531
5532
5533
5534
5535 0000 *0
5536
5537
5538
5539
5540 10000 2045 TEN, 2045/0000/0000 / INSERTED IN UPPER CORE BECAUSE OF FEERILITY.
5541 10001 0220
5542 10002 0000
5543
5544
5545 10003 0200 CLKSTS, 0
5546 10004 0200 TIM1, 0
5547 10005 0200 TIM2, 0
5548 10006 0200 ASGDET, 0
5549 10007 0200 ADACPT, 0
5550 10010 0202 ADCUNT, 0
5551 10011 0202 CLTEMP, 0
5552 10012 0202 ADCX, 0
5553 10013 0102 U100, 100
5554 10014 0202 CT3, 0
5555 10015 0200 CT2, 0
5556 10016 0200 CT1, 0
5557 10017 0177 U177, 177
5558 10020 4707 U4707, 4707
5559 10021 7775 U7775, 7775
5560 10022 0200 ACOUNT, 0
5561 10023 0200 APUT1, 0
5562 10024 0200 APUT2, 0
5563 10025 0200 AD1, 0
5564 10026 0202 AD2, 0
5565 10027 0200 AD3, 0
5566 10030 0550 UUSETF, USETF
5567 10031 0673 UMEVAL, UUMEVAL
5568 10032 0677, UUPFIX, UUPFIX
5569 10033 0007 U7, 7
5570 10034 5010 US010, 5010
5571 10035 7767 U7767, 7767
5572 10036 0210 U10, 10
5573 10037 0254 UAC1, UUAC1
5574 10040 0661 UAC2, UUAC2
5575 10041 0660 UAC3, UUAC3
5576 10042 0020 PPAC1, AC1
5577 10043 0217 PPAC2, AC2
5578 10044 0216 PPAC3, AC3
5579 10045 0225 PPACE, ACE exponent.
5580 10046 0224 PPAC5, ACS sign.
5581 10047 0017 U17, -17
5582 10050 7777 U7777, 7777
5583 10051 0362 UD0AD, DOAD
5584 10052 7763 U7763, 7763
5585 10053 0203 UTEMP, 0

```



5586 10054 0722 UJMP, UUJMP
 5587 10255 0707 UJMS, UUJMS
 5588 10256 0705 UDEVCON, UUDEVCON
 5589 10257 6000 UGETHD, 6020
 5590 10262 4455 JMS I UJMS
 5591 10041 2177 GETHD
 5592 10262 5457 JMP I UGETWD
 5593 10263 0020 AUTEMP, 0
 5594 10264 7767 ADCCCR, +11

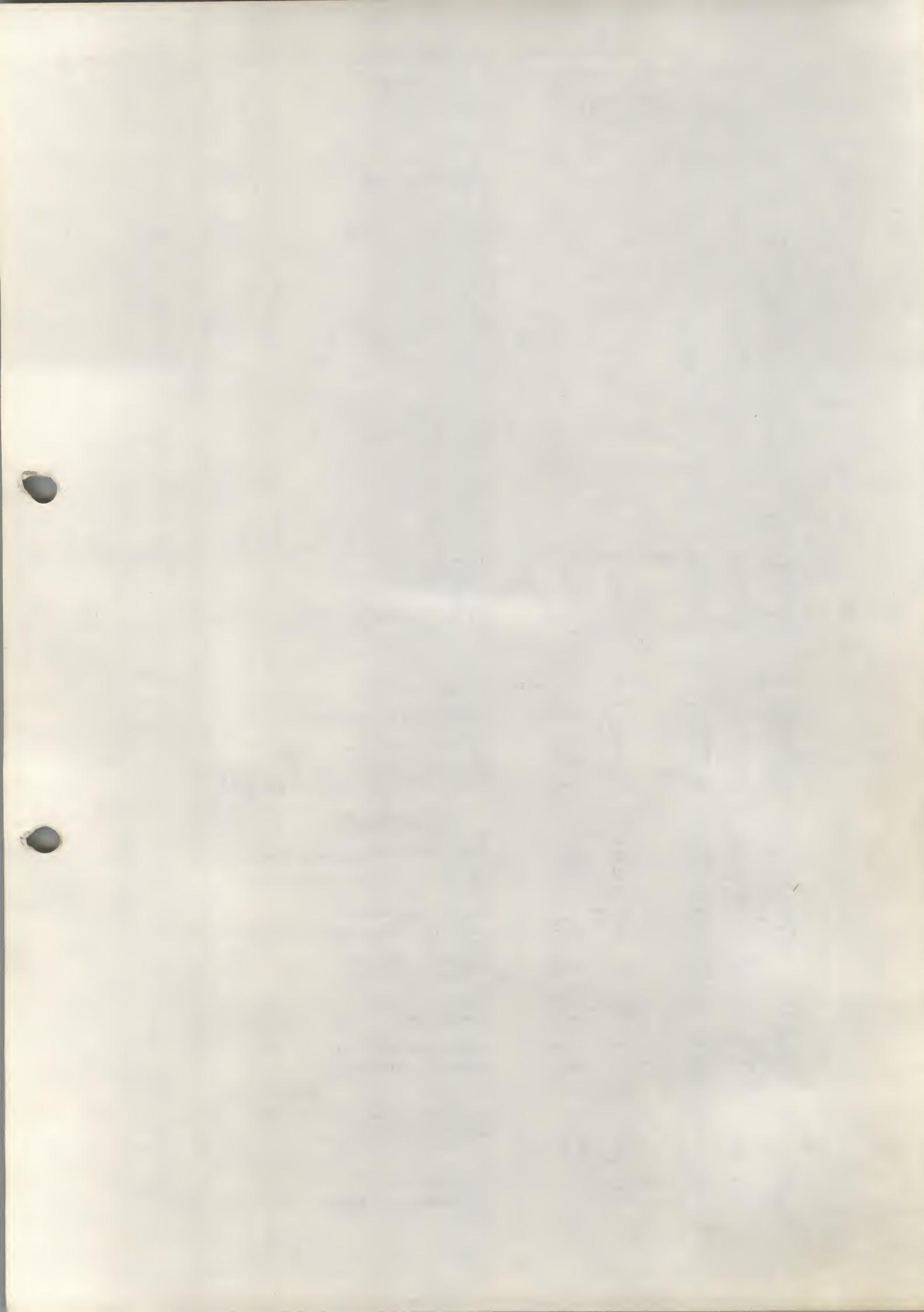
/ABOUT 512 FOR FUDGE.

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5624 0200 PAGE
5625
5626
5627 0175 +,-3
5628
5629
5630
5631
5632
5633 10175 6135 CLOCKI, 6135
5634 10176 3003 DCA CLKSTS
5635 10177 2225 ISZ TIM2
5636 10202 5203 JMP +3
5637 10201 2024 ISZ TIM1
5638 10202 7020 NOP
5639 10203 1006 TAD ABDGET
5640 10204 7750 SPA SNA CLA

/CLEAR CLOCK FLAG,
/AND SAVE STATUS,
/INCREMENT CLOCK.

/IS REAL TIME OPTION RUNNING?

5641 10225 5234 JMP UIEXT /NOPE.
 5642 10226 1007 TAD ADACPT /IT SO, ARE WE NOW ACCEPTING DATA?
 5643 10227 7650 SNA CLA
 5644 10210 5234 JMP UIEXT /NOPE.
 5645 10211 1010 TAD ADACNT /YEP, GET NUMBER OF CHANNELS TO DO.
 5646 10212 3011 DCA CLTEMP /SET UP OUR COUNTER.
 5647 10213 1012 TAD ADCK /GET STARTING CHANNEL NUMBER.
 5648 10214 6531 6531 ←
 5649 10215 1013 TAD U100 /SEND TO TO CONTROLLER.
 5650 10216 6536 6536 /TELL IT TO INCREMENT MULTIPLEXOR WHEN DONE.
 5651
 5652 10217 4451 UCLOOP, JMS I UDOAD /PREFORM A-D INSTRUCTION.
 5653 10220 4263 JMS APUT /STORE IN USERS BUFFER.
 5654 10221 2011 ISZ CLTEMP /ALL DONE?
 5655 10222 5217 JMP UCLOOP /NOPE, WAIT.
 5656 10223 2214 ISZ CT3 /DONE, INCREMENT TOTAL NUMBER OF SAMPLES.
 5657 10224 5234 JMP UIEXT
 5658 10225 2015 ISZ CT2
 5659 10226 5234 JMP UIEXT
 5660 10227 2016 ISZ CT1
 5661 10230 5234 JMP UIEXT
 5662 10231 7240 CLA CMA /ALL DONE, STOP SAMPLING.
 5663 10232 3206 DCA ABDGET
 5664 10233 3007 DCA ADACPT /AND GO INTO "REJECT" MODE.
 5665
 5666
 5667 10234 6031 UIEXT, 6031 /HAS HE TYPED A CONTROL C?
 5668 10235 5243 JMP UIEXT2 /NO.
 5669 10236 6034 6034
 5670 10237 0017 AND U177
 5671 10240 1221 TAD U7775 /^C?
 5672 10241 7652 SNA CLA
 5673 10242 5245 JMP UIEXT3 /YES! BOMB HIM.
 5674
 5675 10243 6131 UIEXT2, 6131
 5676 10244 5260 JMP UIEXT4 /CLOCK HAS NOT COME UP AGAIN, ALL IS WELL.
 5677
 5678 10245 1020 UIEXT3, TAD U0707 /STOP CLOCK IMMEDIATELY.
 5679 10246 6132 6132
 5680 10247 6135 6135
 5681 10250 6130 6130
 5682 10251 7240 CLA CMA
 5683 10252 6130 6130
 5684 10253 6232 6232
 5685 10254 3206 DCA ABDGET /CLEAR ALL AFTER PARTIAL ENABLE.
 5686 10255 3207 DCA ADACPT /CLEAR TTY FLAG.
 5687 10256 4454 JMS I UJMP /FREE BUFFER AND ACCEPT MODE.
 5688 10257 7373 RTERR
 5689
 5690 10260 6223 UIEXT4, CIF CDF 0 /INTERRUPT EXIT.
 5691 10261 5662 JMP I +1
 5692 10262 6744 INTEXT /AND DO WHATEVER GOD INTENDED.
 5693
 5694
 5695



```

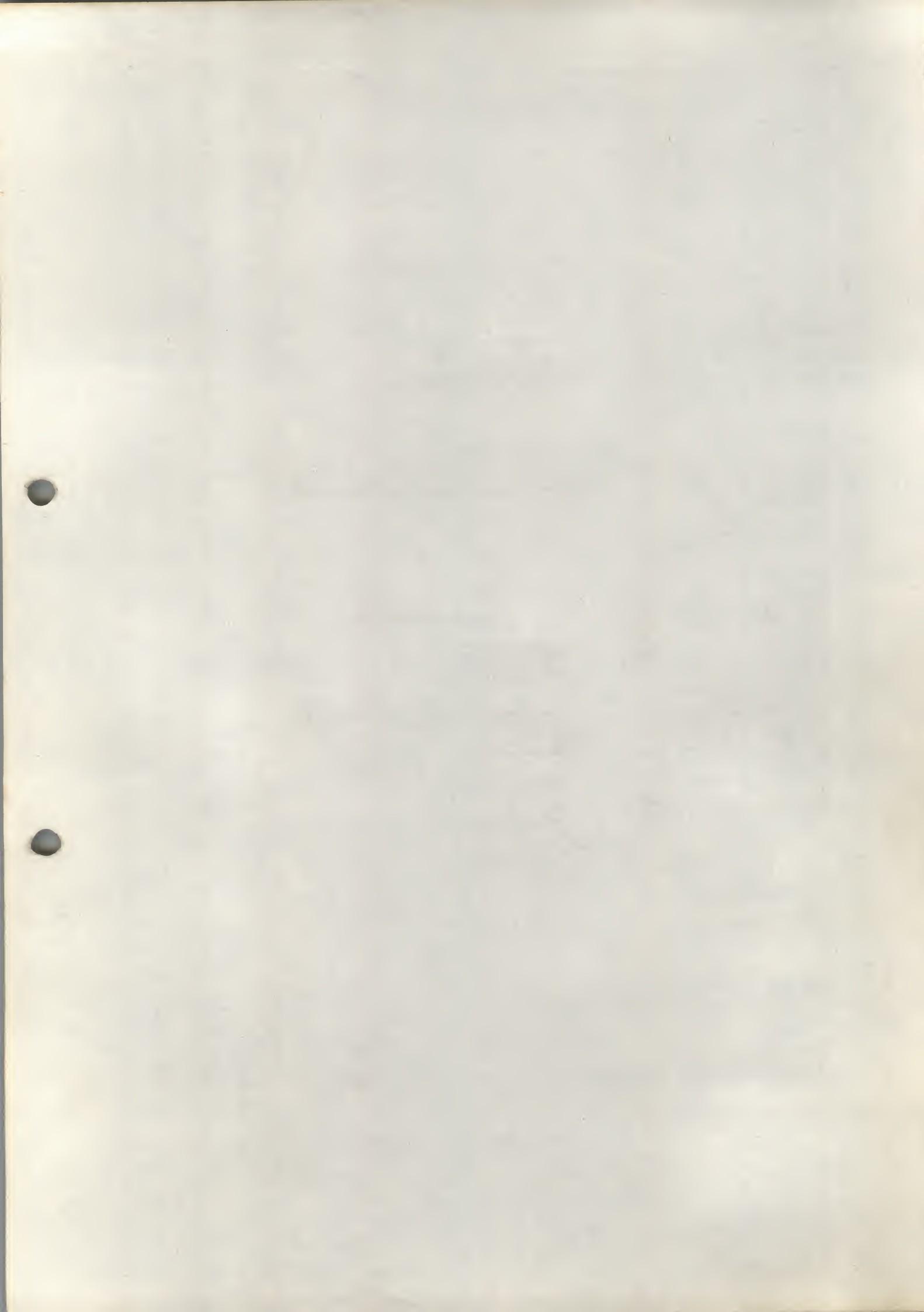
5696
5697 10263 0000 APUT, 0
5698 10264 3423 DCA I APUT1
5699 10265 2022 ISZ ACCOUNT
5700 10266 4125 JMS ABOP
5701 10267 0223 APUT1
5702 10270 1023 TAD APUT1
5703 10271 7041 CIA
5704 10272 1024 TAD APUT2
5705 10273 7600 SZA CLA
5706 10274 5563 JMP I APUT
5707 10275 3036 DCA ABGET
5708 10276 3787 DCA ADACPT
5709 10277 4454 JMS I UJMP
5710 10300 7567 UUDATA
5711
5712
5713 10301 0000 AGET, 0
5714 10302 7240 CLA CMA
5715 10303 1022 TAD ACCOUNT
5716 10304 7500 SNA
5717 10305 5312 JMP .+5
5718 10306 7200 CLA
5719 10307 4455 JMS I UJMS
5720 10310 6713 BIDLE
5721 10311 5302 JHP AGET+1
5722
5723 10312 3222 DCA ACCOUNT
5724 10313 1424 TAD I APUT2
5725 10314 3323 DCA ATEMP
5726 10315 6202 IDP
//THIS ROUTINE PUTS A SAMPLE IN THE BUFFER.
//PLACE IN BUFFER,
//INCREMENT COUNTER,
//BOP UP POINTER.
//GET INPUT POINTER,
//DOES IT MATCH OUTPUT POINTER?
//NOPE, ALL IS HELL.
//VERSE BUFFER,
//AND ACCEPT.
//GIVE ERROR,
//A-D ERROR.
//THIS GETS A DATA ITEM FROM BUFFER.
//DECREMENT COUNTER.
//OR SHOULD WE?
//YEP, STILL ITEMS LEFT.
//PUT TO SLEEP
//AND CHECK AGAIN WHEN AWAKE.
//SAVE COUNTER,
//GET THE SAMPLE.
//SAVE WHILE UPDATE TAKES PLACE.

```

```

5727 10316 4325 JMS ABOP
5728 10317 0024 APUT2
5729 10320 6001 IDN
5730 10321 1323 TAD ATEMP
5731 10322 5701 JMP I AGET
//ABOP WILL MESS YOU UP IF CALLED RE-ENTRANTLY.
5732
5733 10323 0000 ATEMP, 0
5734 10324 0000 ATEMP2, 0
5735
5736
5737
5738 10325 0000 ABOP, 0
5739 10326 1725 TAD I ABOP
5740 10327 3324 DCA ATEMP2
5741 10330 1724 TAD I ATEMP2
5742 10331 2325 ISZ ABOP
5743 10332 1025 TAD A0A1
5744 10333 7650 SNA
5745 10334 1026 TAD A0A2
5746 10335 1027 TAD A0A3
5747 10336 3724 DCA I ATEMP2
5748 10337 5725 JMP I ABOP
//SAVE POINTER NOW,
//GET VALUE AND SKIP PAST POINTER #1,
//TEST AGAINST UPPER,
//CORRECT TO LOWER,
//AND ADD IN UPPER,
//AND THEN SAVE AWAY,
//AND THEN EXIT.
5750
5751
5752 10340 0000 UCLS, 0
5753 10341 1023 TAD CLKSTS
5754 10342 4430 JMS I UUSETF
5755 10343 0000 0
5756 10344 5740 JMP I UCLS
//GETS STATUS AFTER LAST CLOCK INTERRUPT.
//RETURN WHEN DONE.
5757
5758
5759 10345 0000 UCLO, 0
5760 10346 6137 6137
5761 10347 4430 JMS I UUSETF
5762 10350 0000 0
5763 10351 5745 JMP I UCLO
//READS IN AS A CLCA
//GET COUNT REGISTER,
//FIX IT UP,
//AND RETURN NOW.
5764
5765
5766
5767
5768
5769
5770
5771
5772
5773
5774
5775
5776
5777
5778
5779
5780 10352 0000 UUULLL, 0
5781 10353 7200 CLA

```



5782	10354	3022	DCA	ACCOUNT
5783	10355	3025	DCA	APDGET
5784	10356	3027	DCA	ADACPT
5785	10357	6011	ION	
5786	10358	6022	CIF	0
5787	10361	6152	JMP I	000000
5788				
5789				
5790	10362	2002	DOAD,	0
5791	10363	1012	TAD	07768
5792	10364	3016	DCA	0SCREW
5793	10365	6018	6532	/PLENTY OF DELAY
5794	10366	6014	0C4DLP,	/SAVE IN A COUNTER WORD.
5795	10367	7017	6534	/START CONVERSION,
5796	10372	5073	SKP	/WAIT UNTIL DONE,
5797	10371	2075	JMP	/IF NOT DONE, WAIT SOME.
5798	10372	5016	1011	/IF DONE, READ IT IN.
5799	10373	6013	6523	/WAIT UNTIL DONE OR TOO LONG.
5800	10374	5062	JMP I	/THEN READ IN THE CONVERTED NUMBER.
5801				/AND RETURN.
5822	10375	2002	0SCREW,	0
5823				
5824				
5825				
5826				
5827			0400	PAGE
5828				
5829				
5830				
5831				
5832				
5833				
5834				
5835				
5836				

5837				
5838				
5839				
5840				
5841				
5842				
5843				
5844	10400	4057	USETR,	JMS UGETWD
5845	10401	4031	JMS I	UMEVAL
5846	10402	4032	JMS I	UPFIX
5847	10403	6033	AND	U7
5848	10404	7105	CLL	RTL
5849	10405	7226	RTL	
5850	10406	7026	RTL	
5851	10407	1034	TAD	US010
5852	10410	5216	JMP	USETH
5853				/SET OTHER CORRECT BITS NOW.
5854	10411	4057	USETC,	JMS UGETWD
5855	10412	4031	JMS I	UMEVAL
5856	10413	4032	JMS I	UPFIX
5857	10414	6035	AND	U7767
5858	10415	1036	TAD	U10
5859				/SET OTHER CORRECT BITS NOW.
5860	10416	3053	USETM,	OCA UTEMP
5861	10417	7240	CLA	CHA
5862	10420	6130	6130	
5863	10421	7200	CLA	
5864	10422	4031	JMS I	UMEVAL
5865	10423	4032	JMS I	UPFIX
5866	10424	7241	CIA	
5867	10425	6222	IOF	
5868	10426	6133	6133	
5869	10427	7202	CLA	
5870	10430	3024	OCA	TIM1
5871	10431	3025	OCA	TIM2
5872	10432	1053	TAD	UTEMP
5873	10433	6132	6132	
5874	10434	6001	ION	
5875	10435	7200	CLA	
5876	10436	5456	JMP I	UDEVCON
5877				/AND EXIT NOW.
5878				
5879				
5880	10437	7240	UWAIT,	CLA CHA
5881				/WAITS FOR AN INTERRUPT. SET TO LOOK LIKE CLOCK DID IT.
5882	10440	1025	UWAITC,	TAD TIM2
5883	10441	3253	OCA	UTEMP
5884	10442	4055	JMS I	UJMS
5885	10443	6713	BIDLE	
5886	10444	1053	TAD	UTEMP
5887	10445	7041	CIA	
5888	10446	1225	TAD	TIM2
5889	10447	7652	SNA CLA	
5890	10448	5242	JMP	UWAITC+2
5891	10451	4054	RANDAE,	JMS I UJMP

0636.

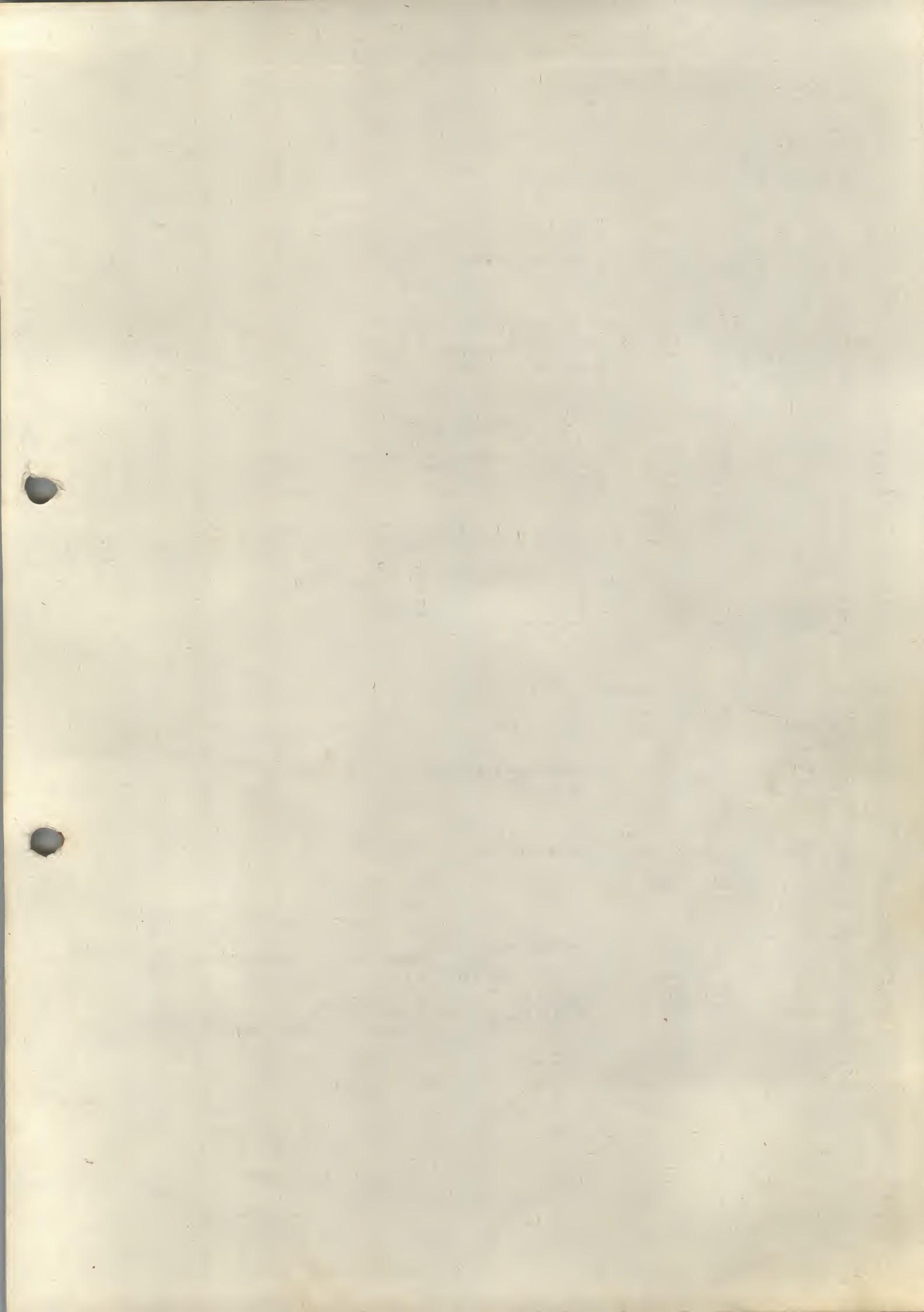
5892 10452 7175 DEVCOM
 5893
 5894
 5895 10453 1226 UACCEPT, TAD ABOGET /IS BUFFER ASSIGNED?
 5896 10454 7750 SZA SMA CLA /YEP, WE CAN ACCEPT NOW.
 5897 10455 7201 CLA IAC
 5898
 5899 10456 3217 UREJY, DCA ADACPT /OR REJECT.
 5900 10457 5281 JHP RANDAE /AND THEN EXIT.
 5901
 5902
 5903
 5904
 5905
 5906
 5907
 5908 10460 1237 UREAL, TAD ADACPT /REAL TIME DECODING FUNCTION.
 5909 10461 7450 SNA CLA
 5910 10462 5215 JMP *3
 5911 10463 4254 JMS I UJMP
 5912 10464 2457 SKIPIT
 5913 10465 2419 JMS I UJMS
 5914 10466 7402 GETARY
 5915 10467 4437 JMS I UAC1
 5916 10470 3223 DCA APUT1
 5917 10471 1023 TAD APUT1
 5918 10472 3224 DCA APUT2
 5919 10473 4443 JMS I UAC2
 5920 10474 7241 CIA
 5921 10475 3225 DCA ADA1
 5922 10476 4440 JMS I UAC2
 5923 10477 7281 IAC
 5924 10500 3227 DCA ADA3
 5925 10501 1227 TAD ADA3
 5926 10522 7241 CIA
 5927 10523 1223 TAD APUT1
 5928 10524 3226 DCA ADA2
 5929 10525 4057 JMS USETWD
 5930 10526 4431 JMS I UMEVAL
 5931 12527 4432 JMS I UPFIX
 5932 10510 2247 AND U17
 5933 12511 3212 DCA ADCX
 5934 10512 4431 JMS I UMEVAL
 5935 10513 4432 JMS I UPFIX
 5936 10514 7440 SZA
 5937 10515 1058 TAD U7777
 5938 10516 2247 AND U17
 5939 10517 7042 CMA
 5940 10520 3210 DCA ACCOUNT
 5941 10521 4431 JMS I UMEVAL
 5942 10522 4432 JMS I UPFIX
 5943 10523 7161 CLL CML CIA
 5944 10524 3214 DCA CT3
 5945 10525 7204 RAL
 5946 10526 4440 JMS I UAC2
 /ARE WE ACCEPTING NOW?
 /PICK UP BUFFER ITEMS.
 /GET THE FIRST WORD OF ARRAY.
 /SAVE AWAY NOW.
 /ALSO SET UP OUTPUT POINTER.
 /GET LAST WORD OF ARRAY.
 /SAVE IN UPPER LIMIT TESTER.
 /GET AGAIN.
 /ADD ONE.
 /AND SAVE AWAY IN BOPPER WORD.
 /FINALLY GET THE RESET WORD.
 /AND SAVE AWAY FOR WRAP AROUND CONDITION.
 /BYPASS REAL TIME STATEMENT.
 /EVALUATE AN EXPRESSION
 /FIX THE AC NOW.
 /JUST GET CHANNEL NUMBER.
 /SAVE AWAY.
 /EVALUATE ANOTHER ITEM.
 /FIX IT UP.
 /IF ZER0, DO NOT SUBTRACT ONE.
 /SUBTRACT ONE TO BRING INTO 0-17 RANGE.
 /MAKE INTC 0-17.
 /NOW NEGATE AND SUBTRACT ONE.
 /AND SAVE AWAY CORRECT ISZ COUNTER.
 /AND GET NUMBER OF SAMPLES (CLOCK TICKS)
 /SET UP LOW ORDER WORD OF COUNTER.
 /AND PRESERVE CARRY.

5947 10527 7161 CLL CML CIA
 5948 10530 3215 DCA CT2
 5949 10531 7204 RAL
 5950 10532 4437 JMS I UAC1
 5951 10533 7161 CLL CML CIA
 5952 10534 3216 DCA CT1
 5953 10535 3222 DCA ACCOUNT
 5954 10536 7281 CLA IAC
 5955 10537 3226 DCA ABOGET
 5956 10540 5456 JMP I UDEVCON
 /CLEAR PRESENT BUFFER COUNTER.
 /SET UP BUFFER.

5961 10541 2220 UTIM, 0 /RETURNS CLOCK TICK.
 5962 10542 1224 TAD TIM1
 5963 10543 3346 DCA *3
 5964 10544 1225 TAD TIM2
 5965 10545 4430 JMS I USETF
 5966 10546 2220 0
 5967 10547 5741 JMP I UTIM

5968
 5969
 5970 10550 2220 USETF, 0 /SAVE LOW ORDER WORD OF FAC.
 5971 10551 3253 DCA UTEMP
 5972 10552 4455 JMS I UJMS SUBROUTINE VOOR BEGFIX
 5973 10553 3762 BEGFIX /PREPARE TO INTERGIZE IT.
 5974 10554 1750 TAD I USETF /GET MIDDLE WORD. =0
 5975 10555 6201 COF 0
 5976 10556 3443 DCA I PPAC2 /PLACE IN FAC.
 5977 10557 1253 TAD UTEMP /GET LOW WORD.
 5978 10560 3444 DCA I PPAC3 /PLACE IN FAC.
 5979 10561 6211 COF 10
 5980 10562 4455 JMS I UJMS
 5981 10563 4680 ANORM
 5982 10564 2350 ISZ USETF
 5983 10565 5750 JMP I USETF
 /BYPASS VALUE
 /RETURN NOW.

(MAAK FAC ONTVANKELIJK VOOR INTEGER
 GA NAAR FIELD 1
 ERWORDT EEN FIXED POINT NUMBER BY DE FAC
 OPGETELD.



```

6022
6023
6024
6025
6026
6027
6028
6029 10620 0020 UADCB, 0
6030 10631 7710 SPA CLA
6031 10632 5222 JMP UADCN
6032 10633 1026 TAD ABGET
6033 10634 7450 SNA
6034 10635 5220 JMP UABAO
6035 10636 7710 SPA CLA
6036 10637 5215 JMP UADCHY
6037 10638 1127 TAD ABACPT

/THIS RETURNS A VALUE FROM THE A-D,
/BUFFERED OR DIRECT?
/DIRECT,
/CHECK TO SEE WHETHER BUFFER ASSIGNED.
/NO BUFFER ASSIGNED.
/IS BUFFER ACTIVE?
/NO, GET COUNT.
/ACTIVE, ARE WE ACCEPTING DATA?

```

```

6038 10631 7650 SNA CLA
6039 10632 5215 JMP UADCHY
6040 10633 4653 UADCN, JMS I UPAGET
6041 10634 5231 JMP UINAC
6042 10635 1022 UADCHY, TAD ACCOUNT
6043 10636 7640 SZA CLA
6044 10637 5213 JMP UADCN
6045 10638 4454 UABAO, JMS I UJMP
6046 10639 7460 UUNDAD /
6047 10640 4432 UADCN, JMS I UPFIX
6048 10641 0387 AND U17
6049 10642 6002 IDF
6050 10643 6531 6531
6051 10644 6536 6536
6052 10645 4051 JMS I UDGAD
6053 10646 6001 ION
6054 10647 3063 UINAC, DCA AUTEMP
6055 10648 1063 TAD AUTEMP
6056 10649 7510 SPA
6057 10650 7201 CIA
6058 10651 4430 JMS I USETF
6059 10652 10656 0000 0
6060 10653 10637 1263 TAD AUTEMP
6061 10654 10642 6221 CDF 0
6062 10655 10641 7710 SPA CLA
6063 10656 10642 7330 CLA CLL CML RAR
6064 10657 10643 3446 DCA I PPACS
6065 10658 10644 1445 TAD I PPACE
6066 10659 10645 1264 TAD ADCCOR ←
6067 10660 10646 7500 SHA
6068 10661 10647 3445 DCA I PPACE
6069 10662 10650 7200 CLA
6070 10663 10651 6211 CDF 10
6071 10664 10652 5603 JMP I UADCB
6072 10665 10653 0301 UPAGET, AGET

/NO, CHECK COUNT IN BUFFER.
/GET VALUE FROM A-D BUFFER.
/AND FIX IT UP.
/GET BUFFER COUNTER NOW.
/IS?
/NOPE, WE CAN RETURN SOME DATA.
/NO A-D DATA IN BUFFER.

/NON-REAL TIME,
/JUST GET CHANNEL NUMBER.
/WE CANNOT BE INTERRUPTED HERE.

/PREFORM THE CONVERSION NOW.
/RESTORE INTERRUPTS.

/SAVE FOR A SECOND.
/PLACE ABSOLUTE VALUE IN FAC.

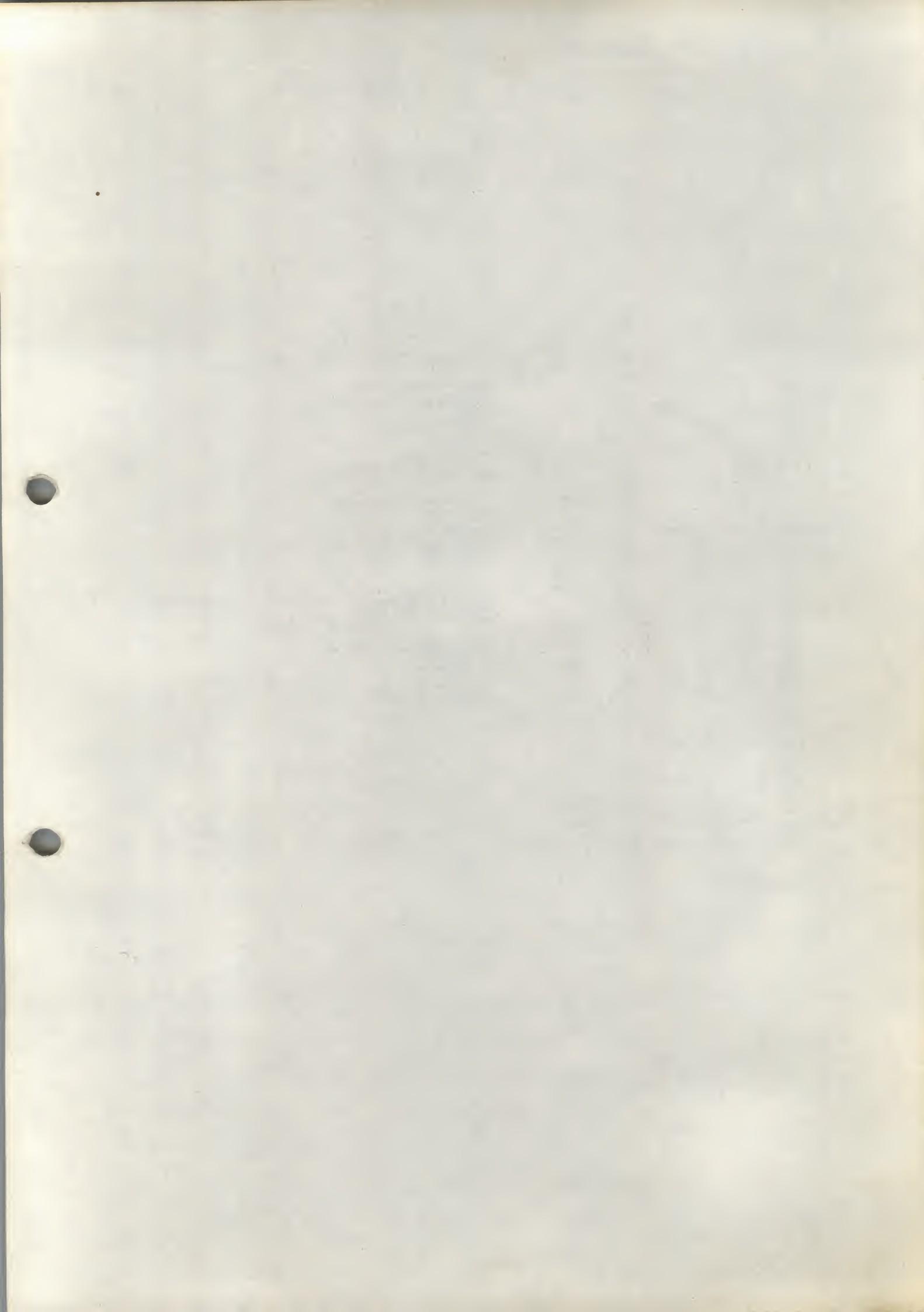
/NOW SET SIGN OF FAC.
/SET TO PICK UP FIELD 0, NO COOLNESS LEFT, DESPITE COMMENTS.
/IF POSITIVE LEAVE ALONE.
/SET LEFT MOST BIT ON TO INDICATE NEGATIVE.

/GET EXPONENT NOW.
/BRING INTO CORRECT RANGE NOW.
/IF TOO FAR,
/DON'T CORRECT.

/RESET CDF.
/RETURN TO FIELD ONE

6073 10666 0020 UUAC1, 0
6074 10667 10655 6201 CDF 0
6075 10668 10656 1442 TAD I PPAC1
6076 10669 10657 6211 CDF 10
6077 10670 10660 5554 JMP I UUAC1
6078 10671 10661 0020 UUAC2, 0
6079 10672 10662 6221 CDF 0

```



```

6073 10663 1443      TAD I  PPAC2
6074 10664 6211      CDF    10
6075 10665 5661      JMP I  UUAC2
6076
6077 10666 2000  UUAC3, 0
6078 10667 6201      CDF    0
6079 10670 1444      TAD I  PPAC3
6080 10671 6211      CDF    10
6081 10672 5665      JMP I  UUAC3
6082
6083
6084
6085 10673 0730  UUMEVAL,0
6086 10674 4455      JMS I  UJMS
6087 10675 7415      MEVAL
6088 10676 5673      JMP I  UUMEVAL
6089
6090 10677 2000  UUPREFIX, 0
6091 10700 4455      JMS I  UJMS
6092 10701 0744      FIX
6093 10722 7200      CLA
6094 10703 4441      JMS I  UAC3
6095 10704 5677      JMP I  UUPREFIX
6096
6097
6098 10725 4454  UUDEV0, JMS I  UJMP
6099 10706 7176      DEVCON
6100
6101
6102
6103
6104
6105
6106
6107
6108 10727 2020  UUJMS, 0
6109 10712 6202      CIF    0
6110 10711 1727      TAD I  UUJMS
6111 10712 3314      DCA   .+2
6112 10713 4721      JMS I  UUUJMS
6113 10714 0000      0
6114 10715 7410      SKP
6115 10716 2307      ISZ   UUJMS
6116 10717 2307      ISZ   UUJMS
6117 10720 5707      JMP I  UUJMS
6118
6119
6120 10721 7446  UUUJMS, LLLJMS
6121
6122
6123
6124
6125
6126
6127

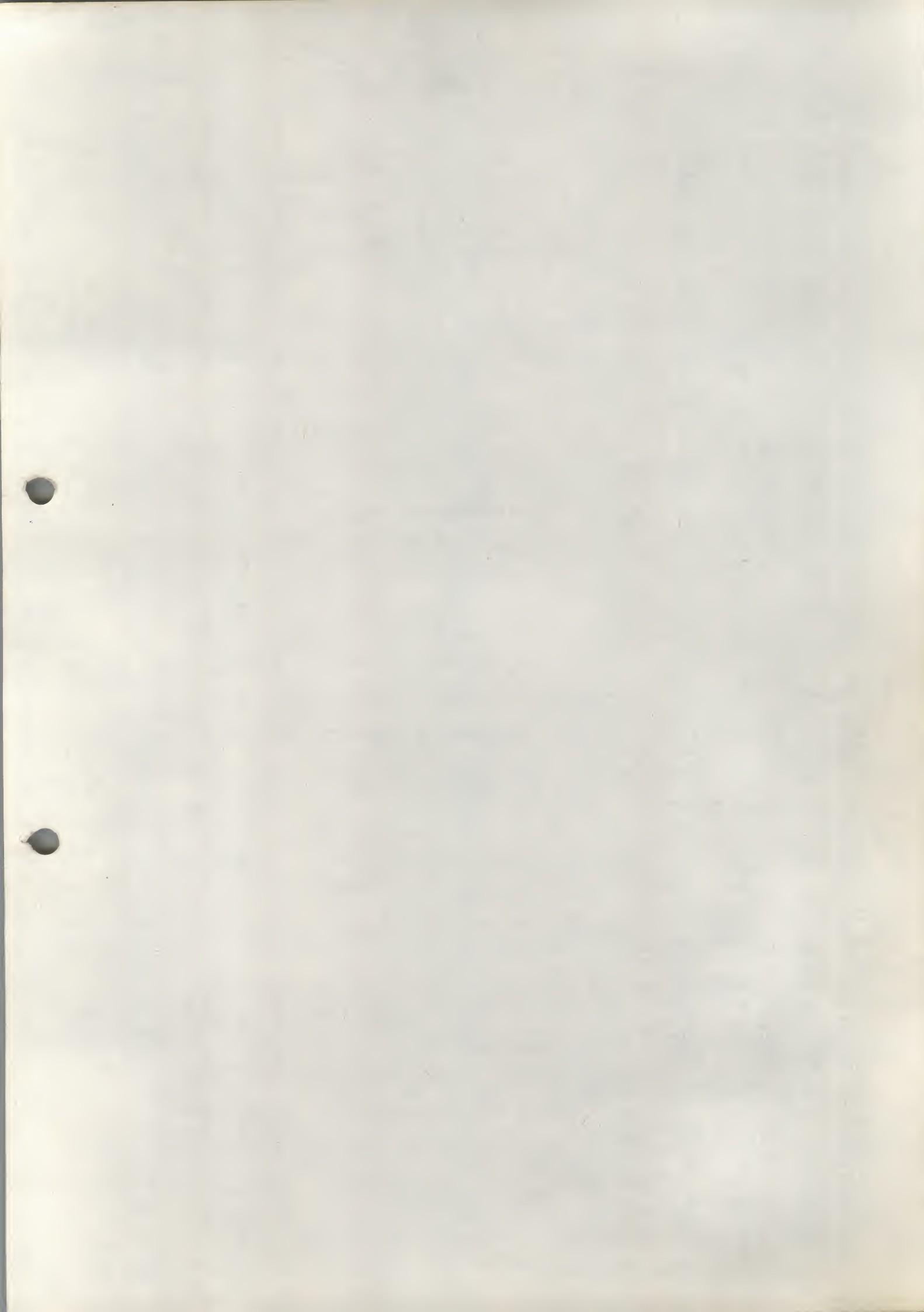
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/ Change to instruction Field 0

```

6128
6129
6130 10722 2020  UUJMP, 0
6131 10723 6202      CIF
6132 10724 1722      TAD I  UUJMP
6133 10725 3327      DCA   .+2
6134 10726 4730      JMS I  UUUJMP
6135 10727 0000      0
6136
6137 10730 7457  UUUJMP, LLLJMP
6138
6139
6140
6141
6142
6143
6144
6145
6146
6147
6148
6149
6150
6151 10731 1335  UPCOM00,TAD  UUFUDGE
6152 10732 1336      TAD  UPJMP
6153 10733 3334      DCA   .+1
6154 10734 7422      MLT
6155 10735 1740  UUFUDGE,-020
6156 10736 5737  UPJMP, JMP I  .+1
6157 10737 2460      UREAL
6158 10740 0400      USETR
6159 10741 0411      USETC
6160 10742 0440      UWAITC
6161 10743 0437      UWAIT
6162 10744 0220      0220
6163 10745 0453      UACCPY
6164 10746 2456      UREJT
6165
6166
6167
6168
6169
6170 10747 0200  UPFUN, 0
6171 10750 1356      TAD  UFFUD
6172 10751 1357      TAD  UFJMP
6173 10752 3353      DCA   .+1
6174 10753 7422      MLT
6175 10754 6202      CIF   0
6176 10755 5747      JMP I  UPFUN
6177
6178 10756 7757  UFFUD, -21
6179 10757 4760  UFJMP, JMS I  .+1
6180 10760 0770      ZZADC
6181 10761 0200      0020
6182 10762 0541      .UTIM

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/BASIC,L8E

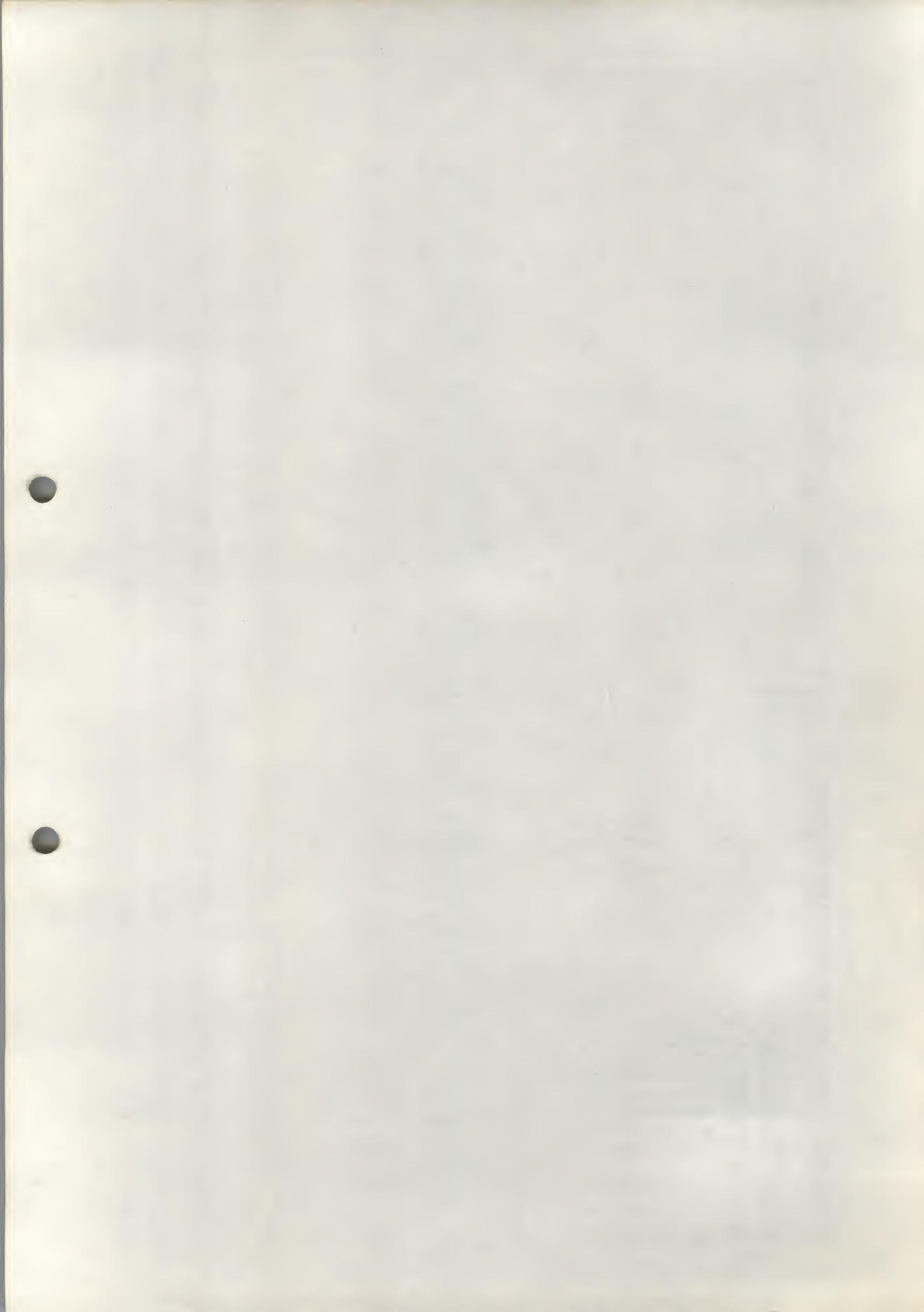
PAL8-V9 / / PAGE 17-3

6183 10763 0000 0000
6184 10764 0000 0000
6185 10765 0000 UCLO
6186 10766 0000 UCLO
6187 10767 0000 ZZADS
6188
6189
6190 10770 0000 ZZADC, 0
6191 10771 7240 CLA DMA
6192 10772 4774 JMS I +2
6193 10773 5773 JMP I ZZADC
6194 10774 0000 UACDS
6195
6196 10775 0000 ZZADR, 0
6197 10776 4774 JMS I ZZADS+1
6198 10777 5775 JMP I ZZADS
6199
6200
6201
6202
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6208
6209
6210
6211
6212
6213
6214
6215
6216
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6218
6219 1000 PAGE
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/BASIC,L8E

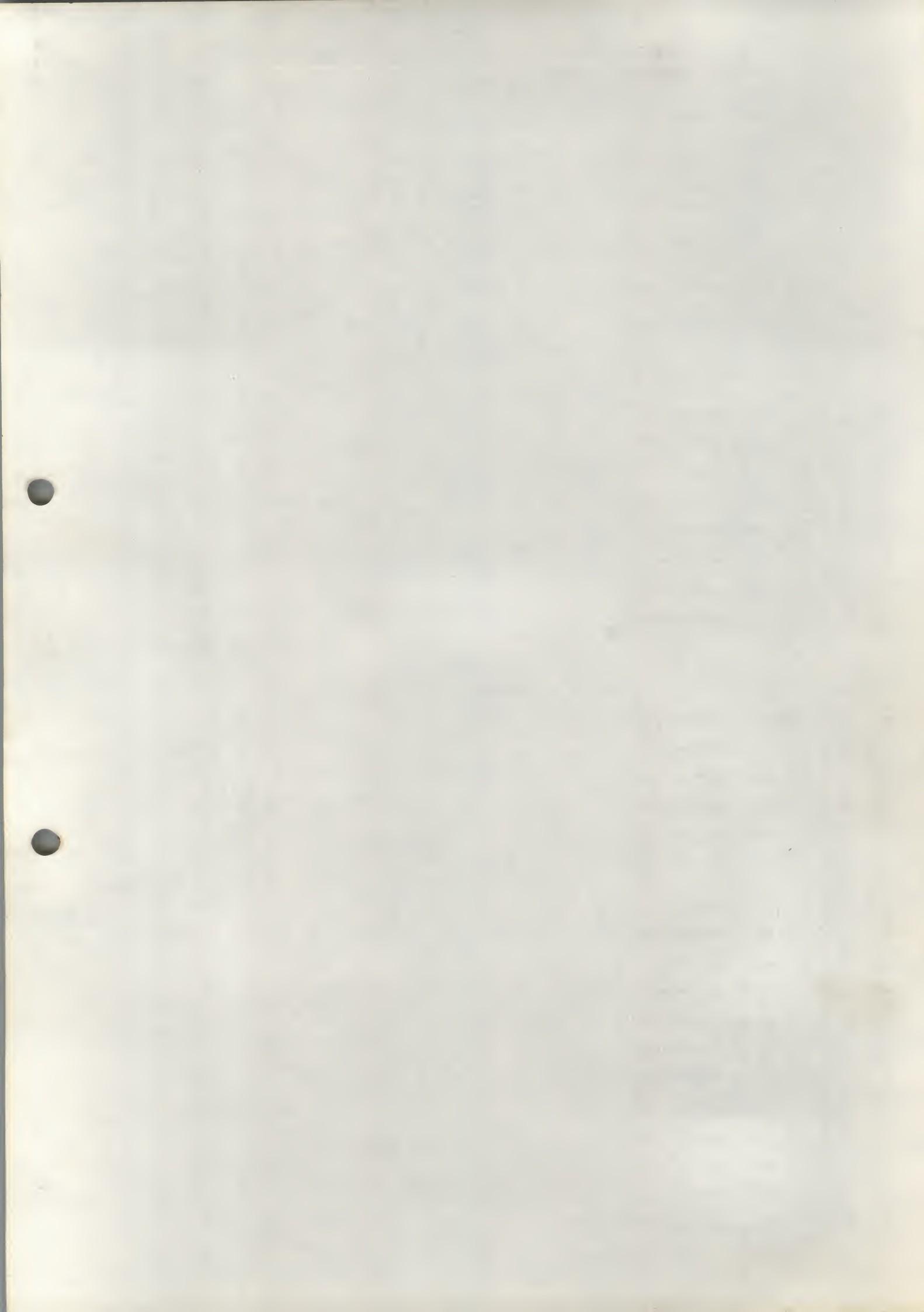
PAL8-V9 / / PAGE 17-4

6238
6239
6240
6241
6242
6243
6244
6245
6246
6247
6248
6249
6250
6251 0003 LIMIT=TEN+3
6252
6253
6254
6255
6256
6257
6258
6259
6260
6261
6262
6263
6264
6265
6266
6267
6268
6269
6270 7022 *7022
6271
6272 17022 0000 PERMSYM,0
6273 17023 4200 XXPLUS, 4200/TEXT /*
6274 17024 5300
6275 17025 4201 XXMINUS,4201/TEXT./*
6276 17026 5500
6277 17027 4302 XXSTAR, 4302/TEXT /*
6278 17030 5200
6279 17031 4323 XXSLASH,4323/TEXT /*
6280 17032 5700
6281 17033 4424 XXUPARR,4424/TEXT /*
6282 17034 3600
6283 17035 4110 XXLE, 4110/TEXT <>
6284 17036 7475
6285 17037 8200
6286 17040 4111 XXGE, 4111/TEXT >>
6287 17041 7675
6288 17042 0000
6289 17043 4112 XXNE, 4112/TEXT <>
6290 17044 7476
6291 17045 0000
6292 17046 4111 XXEG, 4111/TEXT >>



6293 17047 7576
 6294 17050 0000
 6295 17051 4112 XXEL, 4110/TEXT *EL*
 6296 17052 7514
 6297 17053 0000
 6298 17054 4105 XXEQ, 4105/TEXT *EQ*
 6299 17055 7500
 6300 17056 4126 XXLT, 4106/TEXT *LT*
 6301 17057 7400
 6302 17058 4187 XXGT, 4107/TEXT *GT*
 6303 17059 7400
 6304 17060 4015 XXOCOMM, 4015/TEXT *COM*
 6305 17063 5400
 6306 17064 4016 XXOPEN, 4016/TEXT *OPEN*
 6307 17065 7300
 6308 17066 4017 XXCLOSE, 4017/TEXT *CLOSE*
 6309 17067 5100
 6310 17073 4017 XXRBAK, 4017/TEXT *RBAK*
 6311 17071 3500
 6312 17072 4021 XXTO, 4021/TEXT * TO *
 6313 17073 4024
 6314 17074 1740
 6315 17075 0000
 6316 17076 4022 XXSTEP, 4022/TEXT * STEP *
 6317 17077 4023
 6318 17103 2405
 6319 17101 2040
 6320 17102 0200
 6321 17103 4023 XXOPEN, 4023/TEXT *OPEN*
 6322 17104 5200
 6323 17105 4023 XXLBAK, 4023/TEXT *LBAK*
 6324 17106 3300
 6325 17107 4024 XXFN, 4024/TEXT *FN*
 6326 17110 0616
 6327 17111 0003
 6328 17112 4025 XXCOS, 4025/TEXT *COS*
 6329 17113 0517
 6330 17114 2300
 6331 17115 4226 XXTAN, 4026/TEXT *TAN*
 6332 17116 2401
 6333 17117 1600
 6334 17120 4027 XXATN, 4027/TEXT *ATN*
 6335 17121 0124
 6336 17122 1600
 6337 17123 4030 XXLOG, 4030/TEXT *LOG*
 6338 17124 1417
 6339 17125 0700
 6340 17126 4031 XXEXP, 4031/TEXT *EXP*
 6341 17127 2530
 6342 17132 2000
 6343 17131 4032 XXSQR, 4032/TEXT *SQR*
 6344 17132 2321
 6345 17133 2200
 6346 17134 4033 XXABS, 4033/TEXT *ABS*
 6347 17135 0102

6348 17136 2300
 6349 17137 4034 XXSGN, 4034/TEXT *SGN*
 6350 17140 2307
 6351 17141 1600
 6352 17142 4035 XXINT, 4035/TEXT *INT*
 6353 17143 1116
 6354 17144 2400
 6355 17145 4236 XXRND, 4036/TEXT *RND*
 6356 17146 2216
 6357 17147 2400
 6358 17150 4037 XXSIN, 4037/TEXT *SIN*
 6359 17151 2311
 6360 17152 1600
 6361 17153 4243 XXPUT, 4040/TEXT *PUT*
 6362 17154 2225
 6363 17155 2400
 6364 17156 4041 XXLIST, 4041/TEXT *LIST*
 6365 17157 1411
 6366 17160 2324
 6367 17161 0008
 6368 17162 4041 XXLIS, 4041/TEXT *LIS*
 6369 17163 1411
 6370 17164 2300
 6371 17165 4042 XXRUN, 4042/TEXT *RUN*
 6372 17166 2225
 6373 17167 1600
 6374 17170 4043 XXSCR, 4043/TEXT *SCR*
 6375 17171 2303
 6376 17172 2280
 6377 17173 4044 XXGET, 4044/TEXT *GET*
 6378 17174 0725
 6379 17175 2400
 6380 17176 4245 XXADC, 4045/TEXT *ADC*
 6381 17177 0104
 6382 17200 2300
 6383 17201 4046 XXTTY, 4046/TEXT *TST*
 6384 17202 2423
 6385 17203 2400
 6386 17204 4047 XXTIME, 4047/TEXT *TIM*
 6387 17205 2411
 6388 17206 1500
 6389 17207 4050 XXTAB, 4050/TEXT *TAB*
 6390 17210 2401
 6391 17211 2200
 6392 17212 4051 XXUUF, 4051/TEXT *UUF*
 6393 17213 2525
 6394 17214 0600
 6395 17215 4052 XXCLS, 4052/TEXT *CLS*
 6396 17216 0314
 6397 17217 2300
 6398 17220 4053 XXCLC, 4053/TEXT *CLC*
 6399 17221 0314
 6400 17222 0300
 6401 17223 4054 XXADB, 4054/TEXT *ADB*
 6402 17224 0104



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6403 17225 2200
6424 17226 6020 XXCRLF, 6000?TEXT "A"
6425 17227 3700
6426 17230 6020 XXBSLSH, 6002?TEXT "\N"
6427 17231 3420
6428 17232 6001 XXEND, 6021?TEXT "END"
6429 17233 2516
6430 17234 3900
6431 17235 6022 XXFOR, 6022?TEXT "FOR"
6432 17236 2517
6433 17237 2260
6434 17243 2020
6435 17241 6023 XXGOSUB, 6023?TEXT "GOSUB"
6436 17242 2717
6437 17243 2325
6438 17244 3260
6439 17245 2260
6440 17246 6024 XXGOTO, 6024?TEXT "GO TO"
6441 17247 2717
6442 17250 4224
6443 17251 1742
6444 17252 2200
6445 17253 6024 XXTHEN, 6024?TEXT " THEN"
6446 17254 6024
6447 17255 1025
6448 17256 1640
6449 17257 2200
6450 17260 6025 XXIF, 6025?TEXT "IF"
6451 17261 1106
6452 17262 4200
6453 17263 6026 XXINPUT, 6006?TEXT "INPUT"
6454 17264 1116
6455 17265 2025
6456 17266 2800
6457 17267 2200
6458 17270 6027 XXLET, 6007?TEXT "LET"
6459 17271 1405
6460 17272 2480
6461 17273 2200
6462 17274 6010 XXNEXT, 6010?TEXT "NEXT"
6463 17275 1605
6464 17276 3024
6465 17277 4080
6466 17300 6011 XXPRINT, 6011?TEXT "PRINT"
6467 17301 2022
6468 17302 1116
6469 17303 2440
6470 17304 2200
6471 17305 6012 XXRETRN, 6012?TEXT "RETURN"
6472 17306 2205
6473 17307 2425
6474 17312 2216
6475 17311 2200
6476 17312 6013 XXSTOP, 6013?TEXT "STOP"
6477 17313 2324

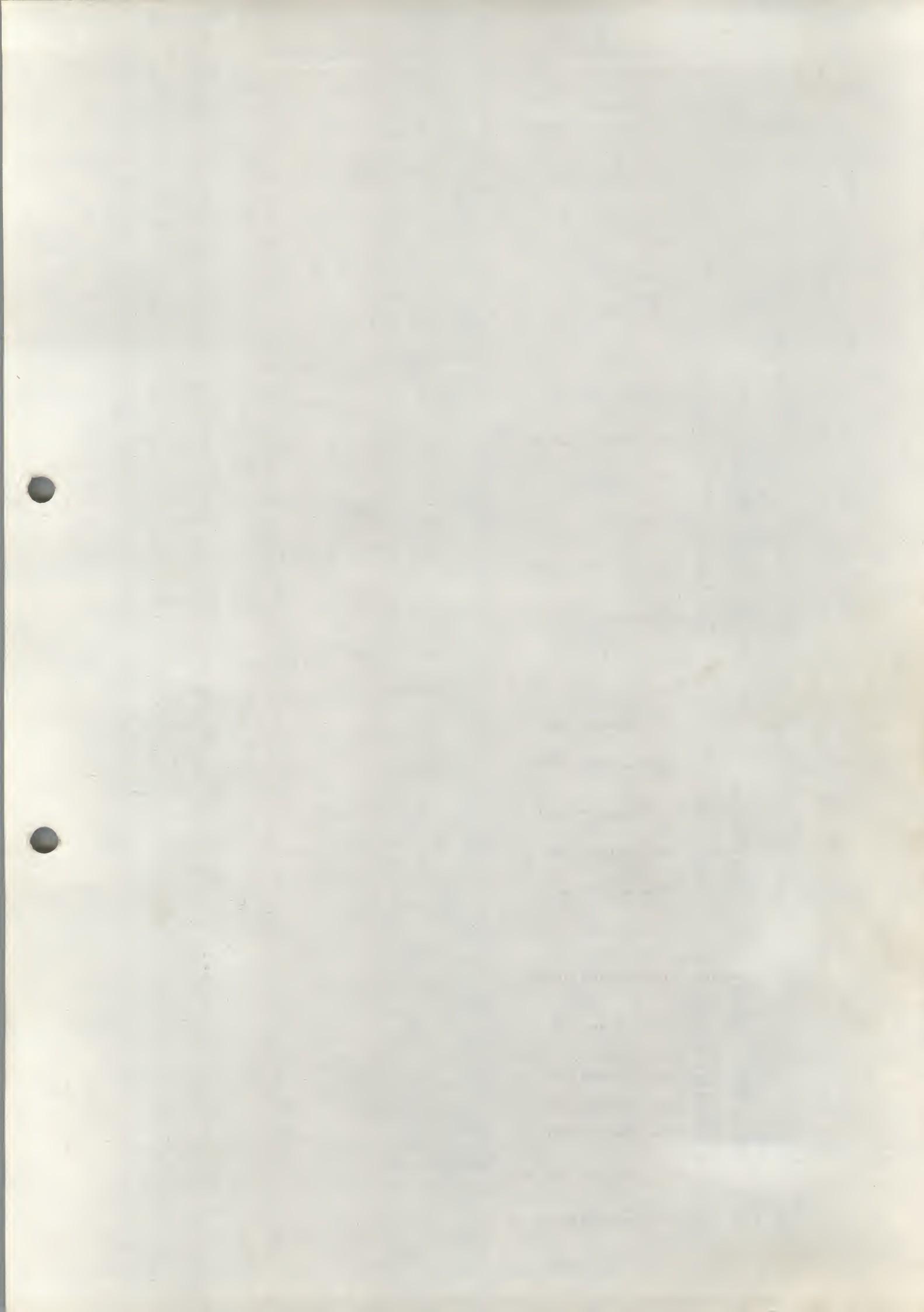
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6458 17314 1720
6459 17315 2200
6460 17316 6014 XXDIM, 6014?TEXT "DIM"
6461 17317 2411
6462 17320 1540
6463 17321 2200
6464 17322 6015 XXRSTOR, 6015?TEXT "RESTORE"
6465 17323 2205
6466 17324 2324
6467 17325 1722
6468 17326 2500
6469 17327 6016 XXREM, 6016?TEXT "REM"
6470 17330 2205
6471 17331 1540
6472 17332 2200
6473 17333 6017 XXDEF, 6017?TEXT "DEF"
6474 17334 2405
6475 17335 6040
6476 17336 2200
6477 17337 6020 XXREAD, 6020?TEXT "READ"
6478 17340 2205
6479 17341 0104
6480 17342 4000
6481 17343 6021 XXDATA, 6021?TEXT "DATA"
6482 17344 2401
6483 17345 2401
6484 17346 4000
6485
6486 17347 6024 XXTTYI, 6024?TEXT "TTY IN"
6487 17350 2424
6488 17351 3140
6489 17352 1116
6490 17353 2200
6491 17354 6225 XXTTYO, 6025?TEXT "TTY OUT"
6492 17355 2424
6493 17356 3140
6494 17357 1725
6495 17360 2400
6496 17361 6026 XXLPT, 6026?TEXT "LPT"
6497 17362 1420
6498 17363 2400
6499 17364 6027 XXPTP, 6027?TEXT "PTP"
6500 17365 2224
6501 17366 2200
6502 17367 6030 XXPTR, 6030?TEXT "PTR"
6503 17370 2224
6504 17371 2220
6505
6506 17372 6032 XXRUB, 6032?TEXT "RUBOUTS"
6507 17373 2225
6508 17374 2217
6509 17375 2524
6510 17376 2300
6511 17377 6233 XXNRUB, 6033?TEXT "NO RUBOUTS"
6512 17403 1617

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/6031 HAS BEEN REMOVED.



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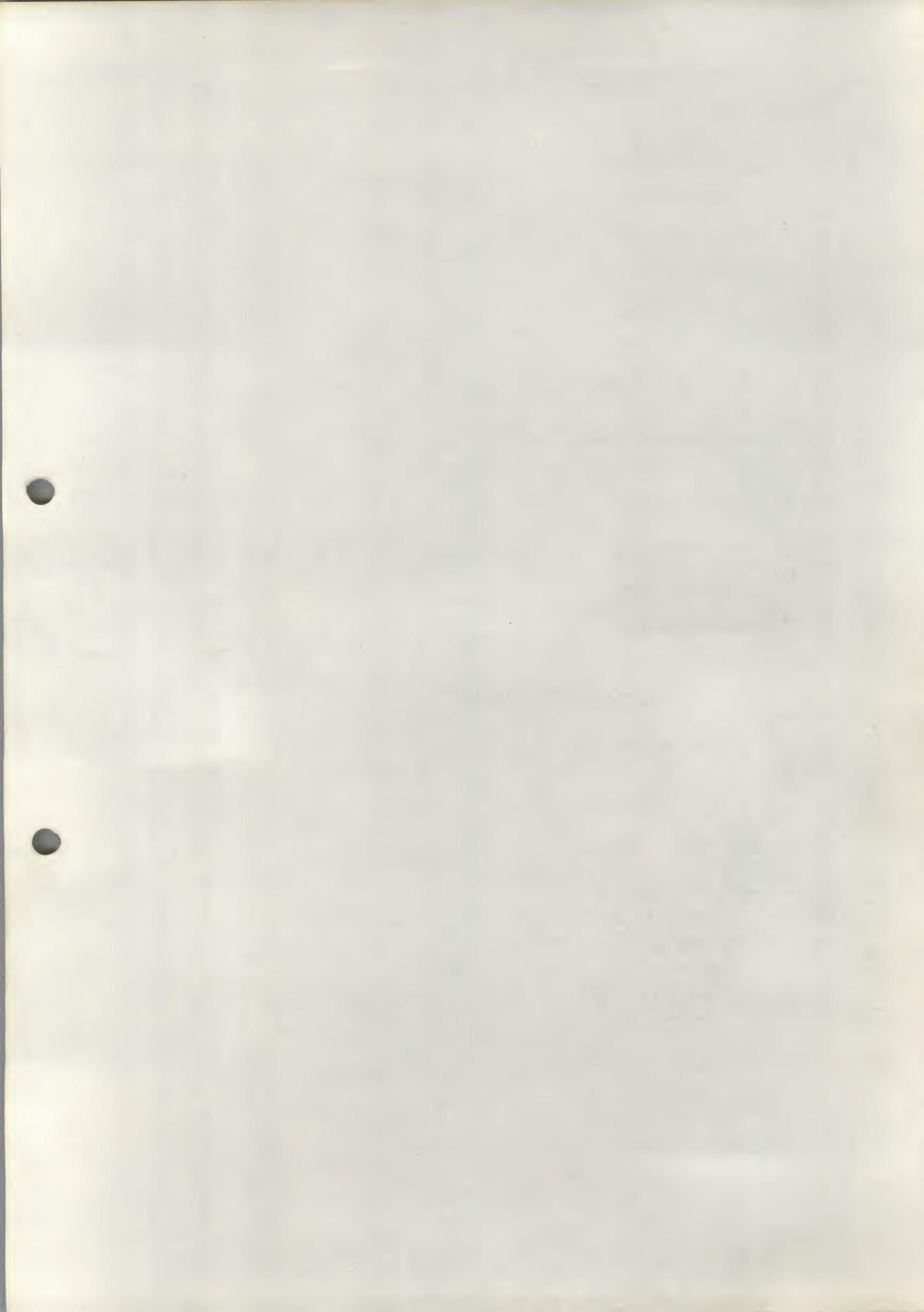
6513 17421 4222
6514 17422 2502
6515 17423 1725
6516 17424 2423
6517 17425 2200
6518 17426 6234 XXCLEAR, 6034; TEXT "CLEAR"
6519 17427 0114
6520 17428 0521
6521 17429 2200
6522 17430 6035 XYDELAY, 6035; TEXT "DELAY"
6523 17431 2423
6524 17432 1401
6525 17433 3100
6526 17434 6735 YYUSE, 6236; TEXT "USE"
6527 17435 2123
6528 17436 2500
6529 17437 0200
6530 17438 6237 XYPLOT, 6237; TEXT "PLOT"
6531 17439 2014
6532 17440 1724
6533 17441 2200
6534 17442 6042 XXREAL, 6042; TEXT "REAL TIME"
6535 17443 2205
6536 17444 0114
6537 17445 4024
6538 17446 1115
6539 17447 0540
6540 17448 2200
6541 17449 6041 XXSETR, 6041; TEXT "SET RATE"
6542 17450 2305
6543 17451 2400
6544 17452 2221
6545 17453 2405
6546 17454 4200
6547 17455 6042 XXSETC, 6042; TEXT "SET CLOCK"
6548 17456 2305
6549 17457 2400
6550 17458 0314
6551 17459 1703
6552 17460 1340
6553 17461 0200
6554 17462 6043 XXWAITC, 6043; TEXT "WAITC"
6555 17463 2721
6556 17464 1124
6557 17465 0320
6558 17466 6044 YYWAIT, 6044; TEXT "WAIT"
6559 17467 2701
6560 17468 1120
6561 17469 0200
6562 17470 6045 XXUCOM, 6045; TEXT "UCOM"
6563 17471 2503
6564 17472 1715
6565 17473 4200
6566 17474 6046 XXACPT, 6046; TEXT "ACCEPT"
6567 17475 0103

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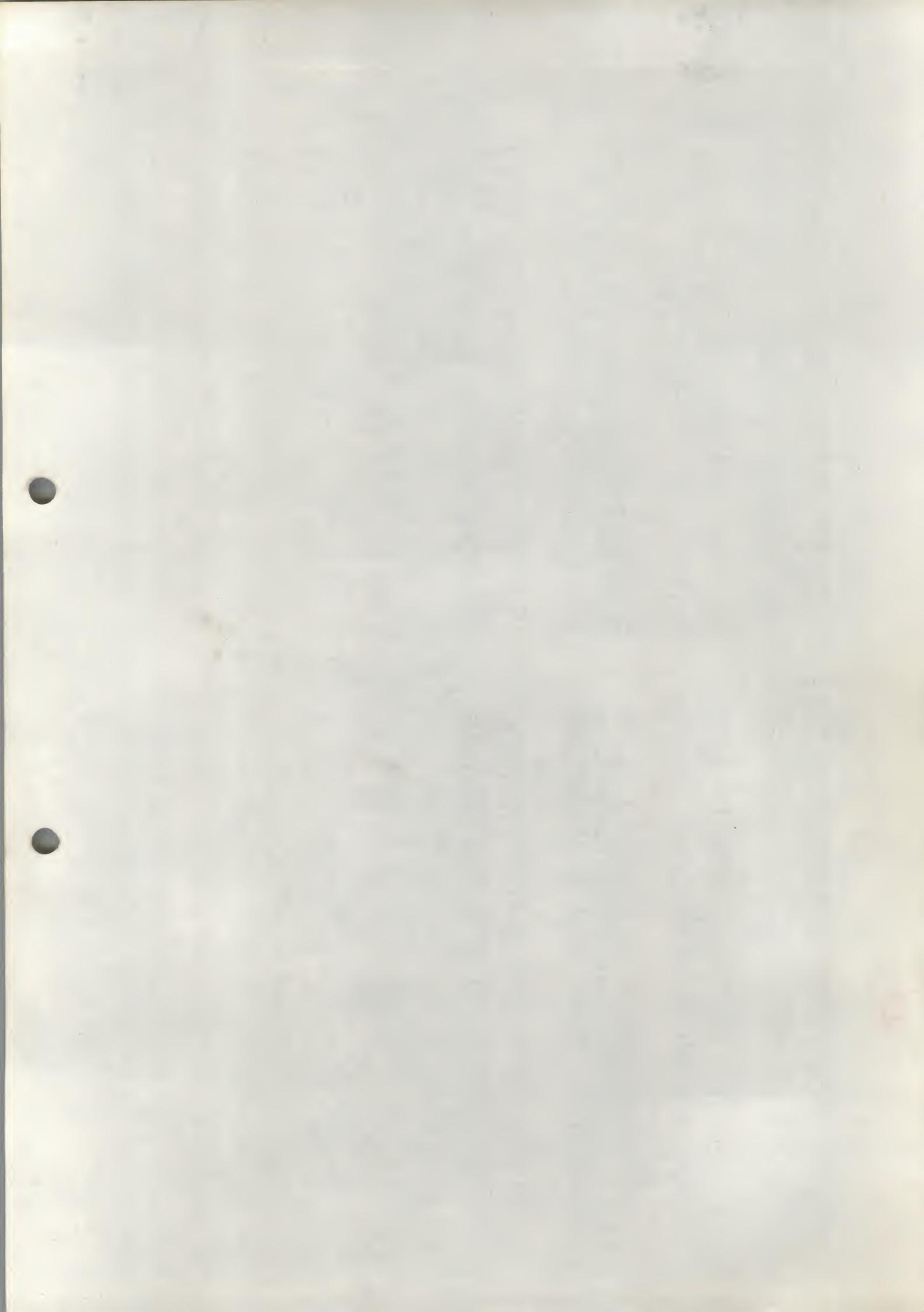
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6569 17477 2224
6570 17478 0030
6571 17479 6247 XXREJT, 6047; TEXT "REJECT"
6572 17480 2205
6573 17481 1205
6574 17482 0324
6575 17483 0200
6576
6577
6578 17500 0200 0
6579
6580
6581 17501 3000 XXTEXT, 3000
6582 17502 6223 XXEOF, 6023
6583 17503 4113 XXUNARY, 4113
6584 17504 4014 XXFINI, 4014
6585 17505 6222 XXEXIT, 6022
6586 17506 2000 XXLITE, 2000/2201/2002/2003
6587 17507 2201
6588 17510 2202
6589 17511 2203
6590 NOPUNCH
6591 17512 0200 LINBUF, ZBLOCK 51
6592 17513 0200 LBEGIN, ZBLOCK 60
6593 17514 0200 ENDIN, 0
6594 17515 0200 POLIST, ZBLOCK 40
6595 17516 0200 ENDPOL, 0
6596 17517 0200 FORLIST, ZBLOCK 20
6597 17518 0200 GOLIST, ZBLOCK 30
6598 17519 0200 GSBEEND, 0
6599 ENPUNCH
6600

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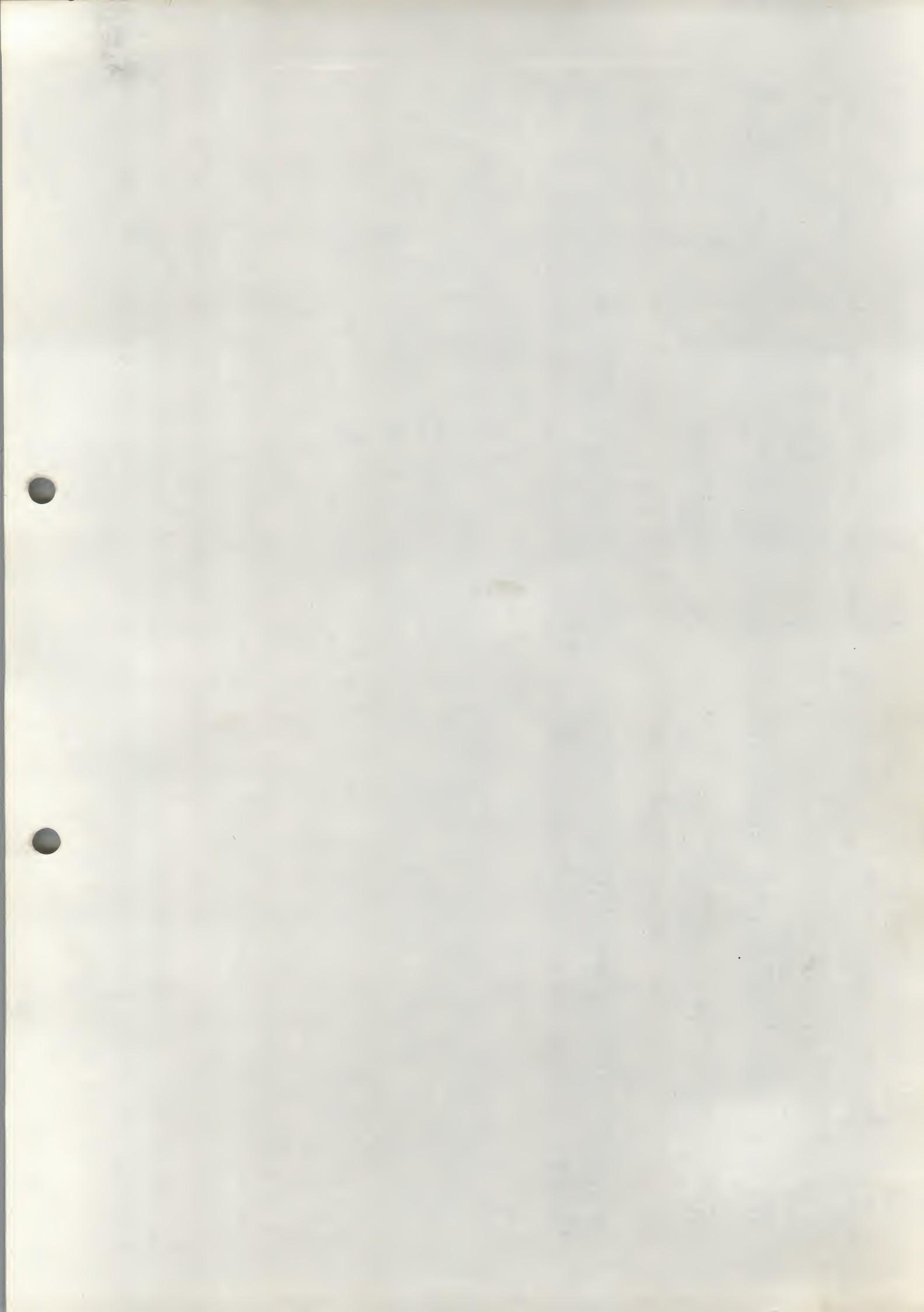
ABCDFF 1786	BEGFIX 3782	OBISRT 7547	EXPOK 5265
ABOCET 0026	BIDLE 6713	OBLLT 7526	FAO 6082
ABRP 2325	BKWD 2609	OBPLT 7556	FADEXT 1314
AN3 6025	BREAK 6522	OBLAST 7512	FADI 6480
ACCEPT 7073	BESKIP 2732	OBEXP 2043	FATMAX 6273
ACE 0025	BUSI 5737	OBFRS 3165	FATNC 6337
ACN 4417	CARRET 2770	OBFRP 1586	FATNC 6342
ACCOUNT 0022	CDINX 7065	OBFF 1275	FATNCJ 6345
ACOS 2024	CCXRA 7342	OBFLY 7463	FATNC1 6324
ACI 0112	COENCO 3070	OBFLTE 4571	FATNC2 6327
AC2 2117	COINP 7425	OBFLUT 8142	FATNC3 5312
AC3 0118	CHCKWD 8216	OBFLY 7175	FATNC 5315
ACDACP 2007	CHKFYT 6121	OBFTON 7176	FATNC 6320
ACD1 0125	CLAB 6133	OBG 6251	FATNC 6323
ACDAP 2009	CLBA 6135	OBGIN 3224	FATNC 6326
ACDAS 0027	CLC 7477	ODIGIT 1204	FATNC 6331
ACD 7477	CLCA 6137	ODIGLP 6857	FATNC 6334
ACD 7477	CLEAR 7432	ODILE 6052	FATNSV 6272
ACDDCP 2040	CLEARV 2659	ODILE 6255	FATNT 6276
ACDL 6530	CLEN 6134	ODILX 6053	FATNTT 6321
ACCOUNT 0010	CLKSTS 0703	ODILY 6254	FENTLC 6665
ACDY 0218	CLOCKI 2175	ODIM 6472	FENTLC 5723
ADDRES 0057	ODE 6152	ODIMFLA 2034	FDIGIT 3360
AOLE 6536	OLRCNT 2342	ODINP 7511	FDV 7002
ADLM 6531	CLS 7477	ODIF 6057	FDVI 7420
ADRB 6533	CLSA 6135	ODISAUT 2015	FENTER 4035
ADRS 6537	CLSK 6131	ODISB 0134	FEXIT 2022
ADSE 6535	CLTEMP 2011	ODISD 6252	FEXPCL 6072
ADSK 6530	CLZE 6132	ODIVLP 4705	FEXPCL 6075
ADSY 6532	CNCLR 0143	ODIVYTE 3364	FEXPCL 6100
AGET 0381	CNTLFC 6782	ODIVX 6055	FEXPCL 6103
ALGNLP 4466	CNTLGR 6670	CLAST 7511	FEXPCL 6106
ALLOC 1451	CNTLO 0133	ODOAD 0362	FEXPCL 6111
ALL3 3146	CODELO 0024	ODADLP 0366	FEXPCL 6267
ALTHOD 2663	COLUMN 6126	ODCTNO 1247	FEXPCL 6261
AL1 4654	COMMON 3408	ODOTZER 7371	FEXPCL 6264
AMATCH 6506	COMPAR 2136	ODFLAG 3365	FEXPCL 6102
ANRM 4500	CONST 1367	ODINTX 3170	FINDLU 0565
APUT 2263	COS 5616	ODSCREW 0375	FIX 4744
APUT1 0023	COXT 7326	ODVLOOP 5245	FIXEXI 4773
APUT2 0024	COWTFP 7343	EDIT 2405	FIXITU 5220
ARCERR 7363	COWTLP 7331	END 2567	FIXLNU 2113
ARRLOC 0003	COWTQ 7340	ENDLIN 7643	FIXLUP 4750
ARI 4422	COWTW 7344	ENDNUM 3331	FIXUP 5146
ATEMP 0323	CRINTX 3076	ENDPOL 7784	FJMP 1000
ATEMP2 0324	CRLFX 6531	EDCFAD 4526	FJMPI 1000
ATLINE 6451	CRLFPR 3740	EPTR 0256	FJUMP 1130
ATN 6202	CT1 2216	ERROR 4142	FLD 3000
ATNBIG 6245	CT2 2015	EVAL 1224	FLDI 3400
ATNLOW 6228	CT3 0214	EVALGO 1027	FLOGC1 6172
ATNNOT 6237	CVTL00 5824	EXECUT 2213	FLOGC2 6153
AUTEMP 0063	DATAER 1667	EXIT 2402	FLOGC3 6156
BARROW 2666	DBAD 7513	EXP 6200	FLOGC4 6161
BCDEFG 1757	DBBAD 7532	EXPGDO 5242	FMP 6200
BEKWDS 4502	DBGDT 7420	EXPLDN 5764	FMP 6400

FMTENF 5123	FSINZZ 5712	IOLEAC 6732	JOIGIT 3124
FMT1 5125	FSIN10 5641	IOLECO 6725	JISODIG 3367
FMT2 5053	FSLE 0150	ICLECI 6726	JMATCH 2766
FMT3 5132	FSLT 0110	IDLELK 6731	JPUTCH 0777
FN 5453	FSNE 0040	IDLEPC 6733	JTXXIT 3123
FNERR 0352	FSQRX 5427	IF 0375	JUSTD 3158
FNEXIT 1200	FST 2022	IGNORE 2115	JUSTDF 3162
FOR 0013	FTSTI 2422	IIXR 7414	JUSTDP 3163
FORCT 0363	FTANT1 5677	IMMED 2454	JUSTI 3145
FORDON 0663	FTANT2 5722	IN 3431	JUSTZ 3147
FORERR 0501	FUNTAB 1131	INCHAR 7255	KEYWD 0231
FORLIM 0721	FUPRCL 5762	INDEV 0127	LBEGIN 7563
FORLIS 7705	FWD 2220	INDEX1 2013	LCF 6662
FORSTE 0724	FXPPFX 6023	INDEX2 2014	LET 0312
FORVAR 0452	GALT 7247	INLCTM 4265	LETOO 2205
FOUND 0575	GDIM2 1564	INLOOP 2572	LETTER 3446
FOURLF 3557	GET 0221	INLUFP 0432	LFXLUP 2333
FPADD 4456	GETADD 1420	INODUN 6710	LHALF 3070
FPADOR 4324	GETARY 7462	INOPPP 6641	LIMIT 0203
FPOIV 4667	GETBLK 1674	INTGTT 6645	LINBUF 7512
FPODIT 4237	GETCH 7201	INPLUP 4034	LINENO 0252
FPFLAG 2156	GETJ 1770	INPPTR 4263	LINFIX 2332
FPGOTO 4273	GETLIN 2603	INPUT 4027	LIST 3620
FPJMP 4317	GETLRE 2620	INSERT 2032	LISTAL 3616
FPJUMP 4274	GETOPR 1015	IRTS 2030	LISTLU 3622
FPLAC 4351	GETVAR 0311	INT 6434	LISTSO 3617
FPLoop 4222	GETWO 0177	INTAC 6734	LIST2 3640
FPMUL 4530	GLOOP 2711	INTCOP 6770	LIST3 3655
FPNLOAD 4270	GOBOTH 0532	INTCIF 6771	LIST4 3661
FPPCOPR 4325	GOLIST 7725	INTECO 6762	LIST5 3676
FPPGZ 4227	GCSUS 2525	INTEMP 6736	LITRAL 3131
FPSKIP 4314	GOTEMP 0253	INTER 6600	LLLJMP 7457
FPSITO 4322	GOTO 0517	INTEXT 6744	LLLJMS 7446
FPSUB 4453	GOTOPR 1222	INTL 6735	LLLUUU 7142
FPT 4200	GOTSS 1074	INTOU 6765	LLS 6666
FPTEMP 4576	GOTSTE 0634	INWDTH 4064	LNENDO 3630
FPTZ 0257	GOUT 7251	IPNOPE 4024	LOADED 4127
FPTZDIV 4736	GPTR 0260	IPPOINT 7234	LOCCTD 0345
FRNDX 5404	GRB 7220	ISDEF2 3512	LOCTEX 0271
FRSTNE 2155	GRDELA 7222	ISDIG 6532	LOCTEMP 1673
FSS 5230	GSSEND 7755	ISDIN 1473	LCG 6112
FSSI 5480	GSSPTR 2145	ISET 7407	LCGACE 6165
FSEQ 0350	GSSI 1562	ISIT 4566	LGFWO 6164
FSDE 0120	GSS2 1563	ISITDF 0550	LGOKD 6167
FSGT 0140	GTEKLP 1719	ISITFU 1110	LOWLOC 2171
FSHIFT 7443	GTEMP 7254	ISITLI 4104	LPYOUT 7163
FSINC1 5713	GWHERE 7272	ISLIT 4133	LSF 6661
FSINC3 5716	HFOUND 7321	ISSCHE 1644	LSTLOC 2160
FSINC4 5721	HIGHWD 4333	ISUMIN 1013	LUP 3425
FSINCS 5724	HLOOP 2722	ITSDEF 3514	LUPP 0126
FSINCH 5727	HPTR 0261	ITSDP 3256	L4LUP 3664
FSINCY 5732	HARCHAR 7255	ITSE 3263	MACHIN 2220
FSINH4 5735	HLROP 7322	ITSOP 1220	MAYZER 4612
FSINOK 5657	HAMES 7323	ITSP 3308	MENDLI 2341
FSINZ 5705	IAHLES 2156	JBENT 3707	MENDPD 2363



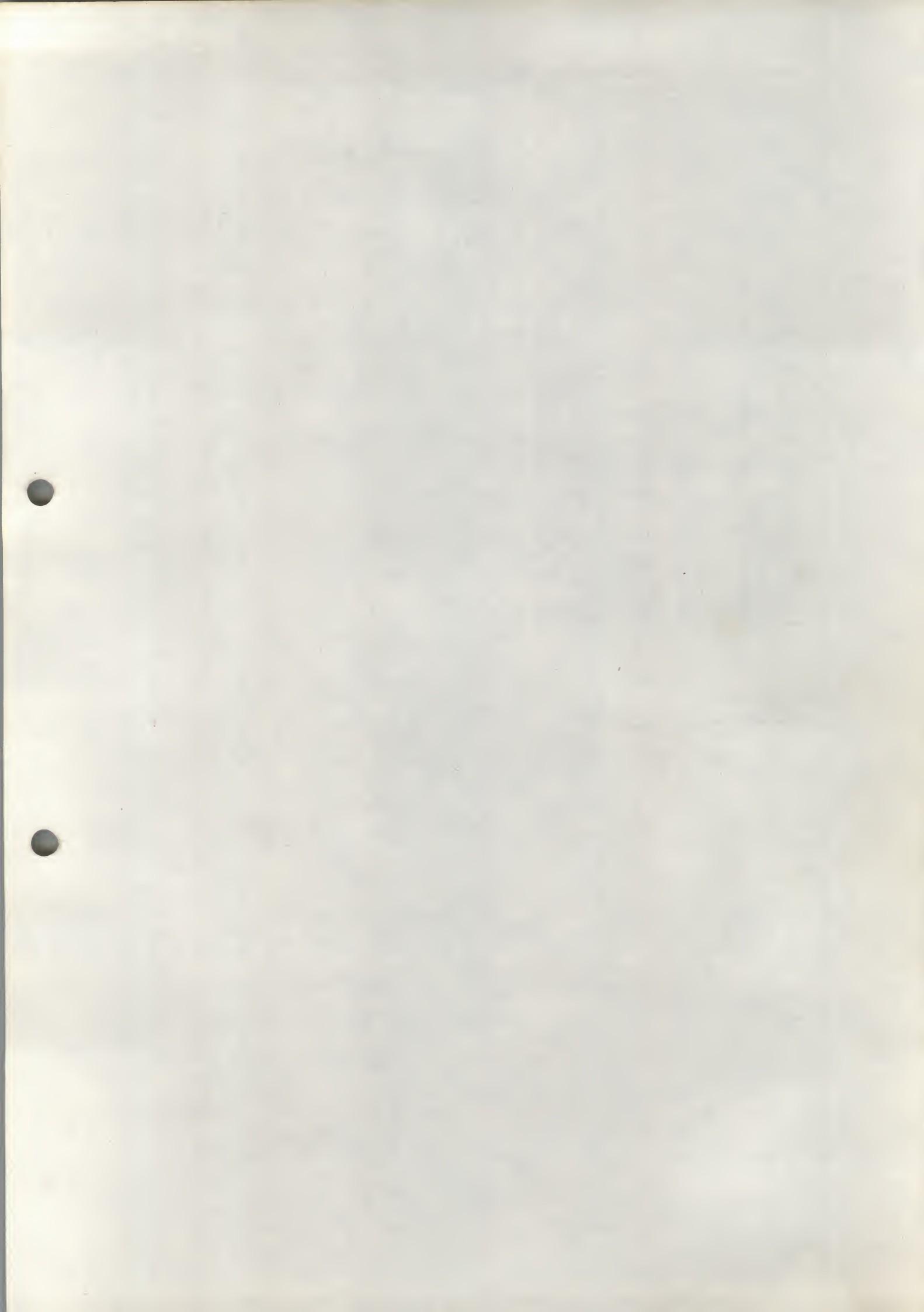
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 MEVALG 7401 NULJOB 7415 017 5147 07643A 2765
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 MOPEN 0525 NUMBUF 5335 0175 7267 07642C 2763
 MINUS 1316 CADD 4435 0177 2027 07673 3316
 MREFG 8173 OEMIGH 1177 01774 3376 077 2372
 MLEN 8174 ODLON 1165 02 0862 07725A 6544
 MLINBU 8240 CROP 7101 0203 8145 07785C 3473
 MRSCH 2736 DCC 5205 02242A 3373 07715 2775
 MRECDI 6470 SEMLIM 7115 0202 5344 07725A 3120
 MOREIN 4800 OCCR 7113 0212 2710 07725B 3371
 MORENO 1621 OCOAT 7042 0215 0277 07737 3122
 MOVE 2012 OCV 2132 023 1366 07740 3354
 MOVLUP 2772 CPAG 7112 0233 3772 07741 3745
 MPN 5321 ODFR 7115 0243 0251 07743 4743
 MOVLUP 4552 OJUMP 1276 0253 5150 07745 2162
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 MULEXP 3346 ONEODIN 1054 0256B 6575 07762 2327
 MULATE 3383 ONESS 1076 0260 0211 07763A 0774
 MUSTBE 0570 CNVYI 3322 027 3373 07763B 3121
 NDELAY 7420 C57400 5452 0305 5152 07764A 1274
 NEWCHA 2515 CC7736 2326 032 3121 07764B 3122
 NEWLIN 2610 COGNE 1203 036 2767 07764C 3374
 NEXT 2680 OPE 2132 03737B 2773 07764D 6777
 NEXTER 0673 OPERAN 0273 03754 1162 07766 5154
 NEXTVA 0637 OPNL 7267 03755 1273 07770 0255
 NINTEC 7457 OPOINT 7065 0377 2271 07771 5155
 NOBUMP 4633 OPOTAB 7273 08 0160 07772 5157
 NOCOMM 0335 ORST 7155 040 2770 07773 5346
 NOINT 0134 OPS 0286 04001 7525 07774 1566
 NONBLN 3110 OPUTC 7241 04014 1163 07775 6776
 NONZER 5016 OP1 0023 042 3126 07776 3372
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 NOPCR 2216 CP3 2221 04213 1164 PACN 4742
 NORLFT 6423 CTTEMP 1271 05040 5347 PAL1 0150
 NORMED 5220 OTHER 3202 06221A 6615 PANDRM 2146
 NORMIT 5227 OTST1 7112 06221B 7205 PARGER 0247
 NORUBO 5574 OUTDEL 7146 06202 6775 PARI 2147
 NOSS1 1462 OUTDEV 2131 07 0072 PASSCR 2072
 NOSS2 1453 OUTD2 2130 078 6774 PASSUM 7440
 NOT 3427 OUTIT 7043 0780 1272 PBEDFI 1776
 NOTBAD 2127 OUTNUM 5200 07808A 2560 PBIDE 7161
 NOTBIG 4620 Ov 2812 07808B 3474 PBOMB 2367
 NOTCR 3023 O1000 3550 07800C 7456 PBUSY 7157
 NOTFRS 2261 O11 0504 07877 1275 PCOUNT 2744
 NOTHER 0435 O110 2361 07520 5153 PCCHKFI 0163
 NOTKWD 2313 O12 0265 07545 4777 PCOMMO 3357
 NOTLOW 2200 O122 2771 07570 6456 PCONT 2141
 NOTSGN 3321 O13 1567 07577 4577 PDEWCO 7442
 NOTTXT 2236 O132 7265 07577B 7554 PDL 2036
 NOTVAR 1105 O137 7261 07600 4345 POLIST 7644
 NOTX10 5236 O14 2360 07601 7260 PEDIT 0120
 NPSPER 7555 O14PA 2775 07603 2774 PERNSY 7022
 NSYHTA 0086 O14PB 2772 07610 5345 PERROR 0077

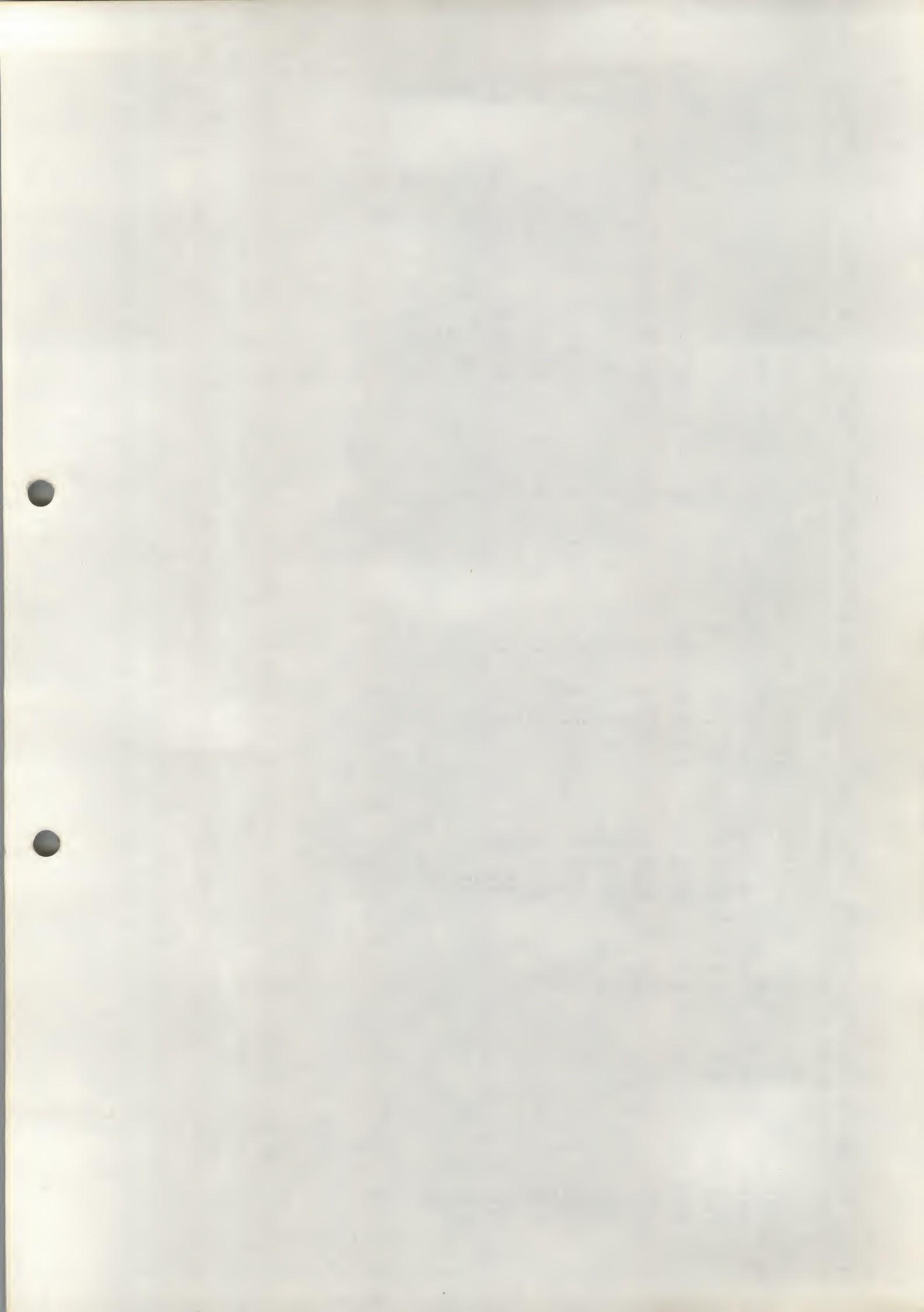
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 PEXP 5776 PPFLOD 4741 PFDRL 0556 SPACER 0370
 PFINDI 0672 PFFORL 1762 PXLINB 3746 SPECIN 0140
 PFFIX 0186 PPOINT 6262 PXXCRL 3125 SPLEFT 0144
 PFNEPR 5546 PPOP 0125 PXXEOF 2564 SQEXIT 5450
 PFPLOC 4575 PPRINR 2241 PXXEXI 3126 SLDOP 5435
 PGETAO 0102 PPRINT 0114 PXXLIT 3130 SQR 5412
 PGETBL 0115 PPRINU 0123 PXXTHE 2562 S\$ERR 1570
 PGETCH 0032 PPUTSH 2124 PZERO 6545 SSFIX 4775
 PGETLI 0124 PPUTCH 0233 QBDLDE 7257 SSONE 0344
 PGETLR 3222 PPXRA 7160 QERROR 4170 SSTWO 0345
 PGETOP 0111 PRENT 2316 QRHCHA 7156 STAR 1327
 PGETVA 0113 PRESET 0137 RANDAE 0451 START 1023
 PGOLIS 0164 PRINL 2277 RBSWCH 0135 STICKI 6430
 PGCTCP 0127 PRINCO 2303 READ 1623 STOP 2570
 PHRCHA 6740 PRINHA 2260 READLO 0046 STOVAR 0341
 PIGNOR 0471 PRINGU 2225 READY 6525 SUBRA 2161
 PINCHA 6741 PRINR 2242 REALTI 7473 SXERR 6441
 PINT 5676 PRINSE 2312 REJECT 7473 TAB 5547
 PISITL 0175 PRINT 2173 RELATE 1342 TABDES 6367
 PJSET 2461 PRINTC 2207 REMPAC 3043 TABDO 6350
 PLBEGI 0172 PRINTG 2206 RESET1 7116 TABFLG 2345
 PLETOO 0204 PRINTH 2222 RESET2 7141 TABDK 6360
 PLETTE 3103 PRINTX 3722 RESTOR 3773 TABTHR 2362
 PLIMIT 2561 PRINUM 3747 RETNER 0713 TAN 5600
 PLINBU 2037 PRINVA 3653 RETURN 0677 TBEGFI 5572
 PLINFI 0161 PRLOOP 3711 RHALF 3274 TEN 0200
 PLIST 2563 PRSUBR 3724 RLEFT 6413 THESKI 1353
 PLITRA 3377 PRTEMP 0242 RND 5353 THISTX 3107
 PLOG 5775 PRTXRE 3722 RNOJMP 5350 TIM 7477
 PLOT 7420 PSGN 5675 RTERR 7373 TIM1 0034
 PLOTB 7514 PSKIP 1617 RURO 5573 TIM2 0205
 PLUS 1312 PSLDOP 0116 RUN 2452 TMP 2031
 PMEVAL 7441 PSPACE 1565 RUNIN 2503 TOOLON 5162
 PMPY 5168 PSTICK 0121 RUNLUP 2465 TPRINT 6370
 PNBF6 5161 PSTOVA 0112 RUNNOT 2477 TRALUP 2105
 PNCR 2757 PSXER 0102 RUN2IN 2543 TRANSF 2103
 PNONBL 0122 PSYMTA 0205 RUN2LU 2514 TRYAGI 5133
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 PNUNBU 0044 PTABL 5571 SCHMOR 1657 TST 7421
 POADO 0157 PTARBLE 2777 SCRATC 2440 TSTFX 7417
 FOFLAG 6742 PTEN 0145 SEARCH 1660 TSTP 4731
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 POPERA 3127 PTPOUT 7164 SETRAT 7473 TTYOUT 7165
 POP3 4434 PTRIN 7172 SETSGN 4512 TUBIG 2657
 POTHER 2776 PTURIG 3221 SETUP 7420 TWIOTH 2357
 POUTIT 6743 PUSERF 5545 SGN 0726 TWOS 1077
 POUTNU 0117 PUSH 2364 SIMPLV 3466 TXTPAK 3046
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UDCIO 0051	UI30 0013	XXGOSU 7241	XXTTYO 7354
UDOPPER 1753	U17 0047	XXGOTO 7246	XXUCOM 7462
UFFAO 0156	U177 0017	XXGT 7060	XXUNAR 7503
UC349 0757	U2P 7524	XXIP 7260	XXUPAR 7033
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UIFEXT 0243	U7762 0052	XXLE 7035	XXWAIT 7456
UIEXTS 0245	U7767 0035	XXLET 7270	ZERON 5144
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USE 7406	XXABS 7134	XXRERA 7070	
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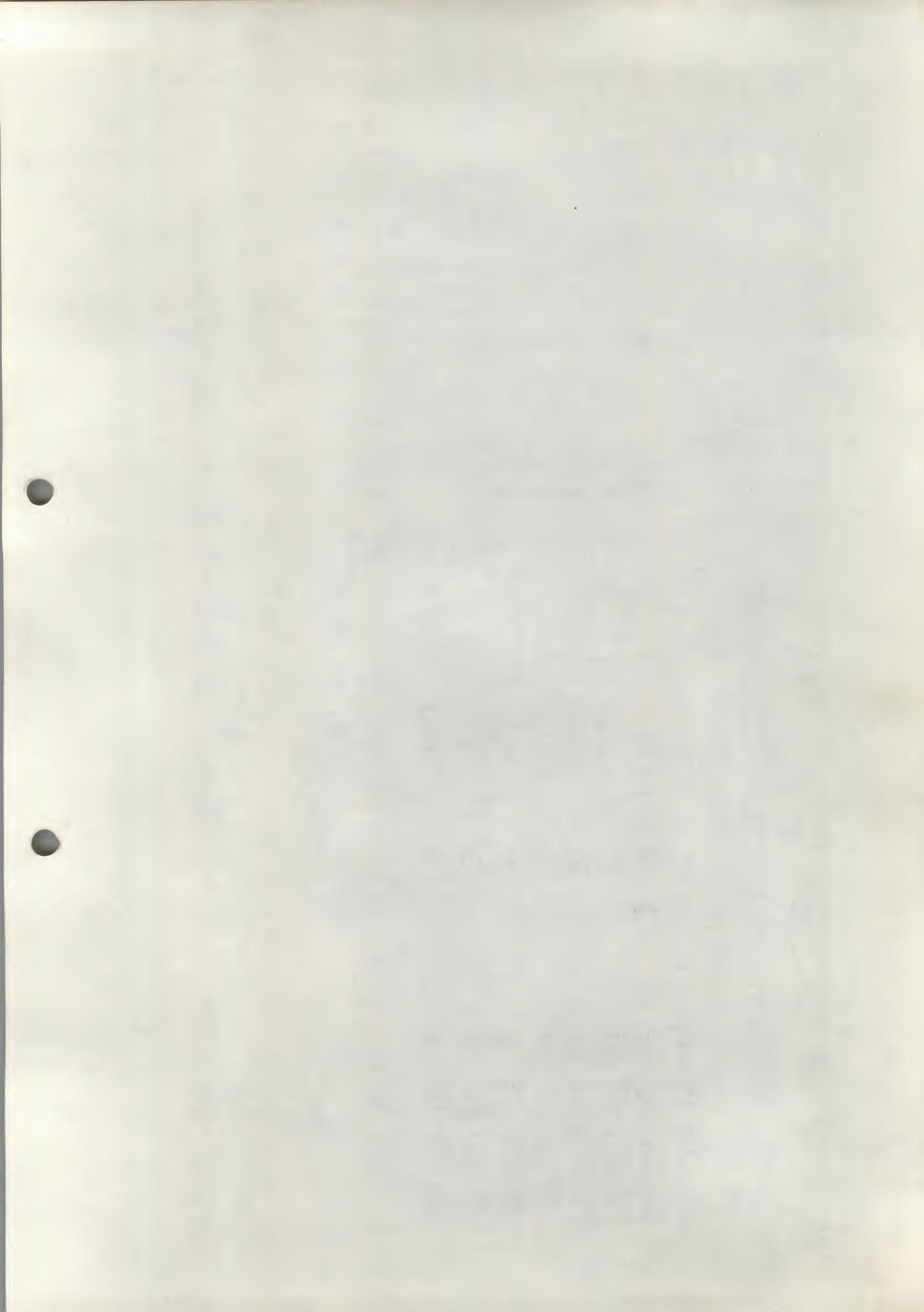
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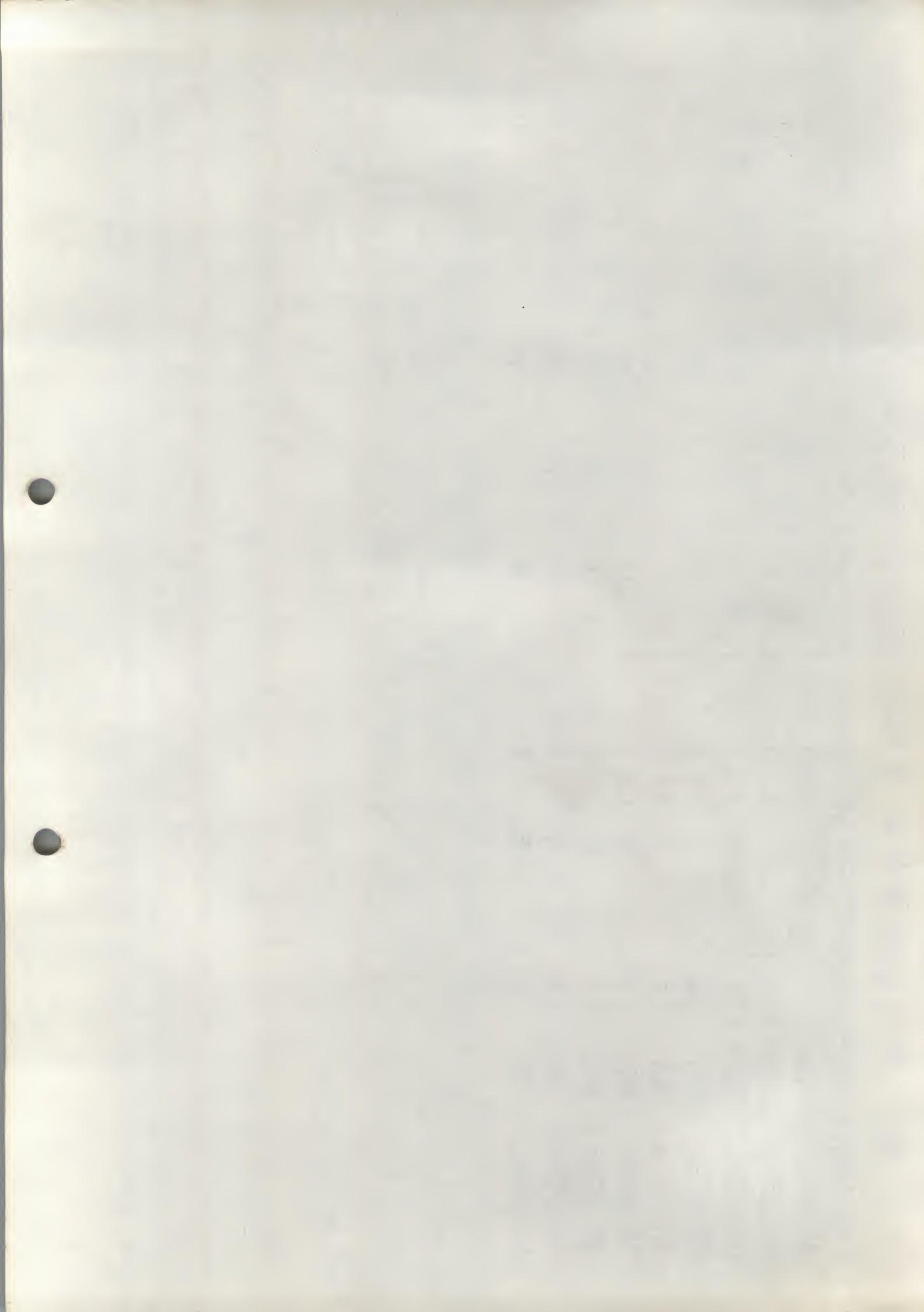


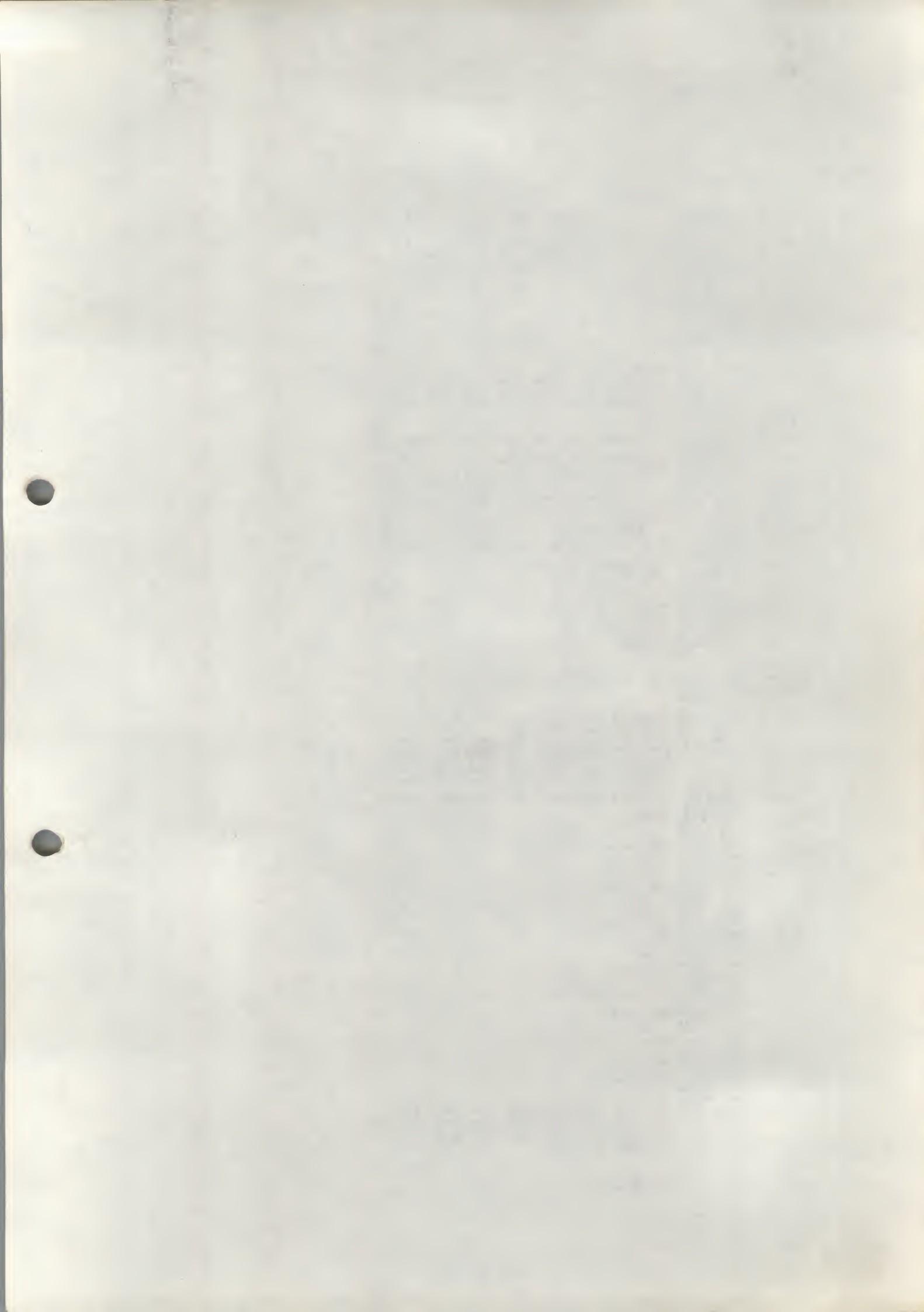
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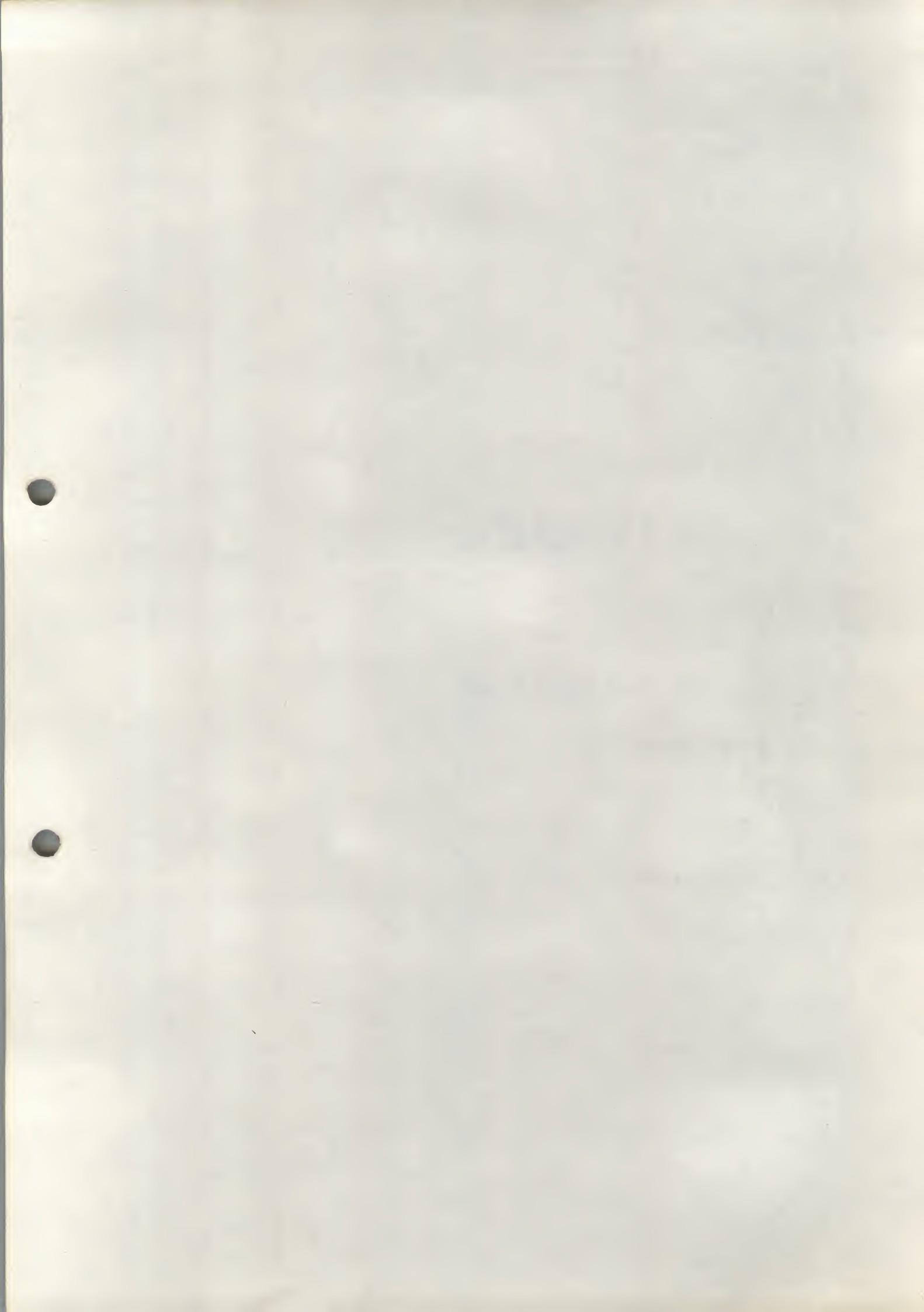
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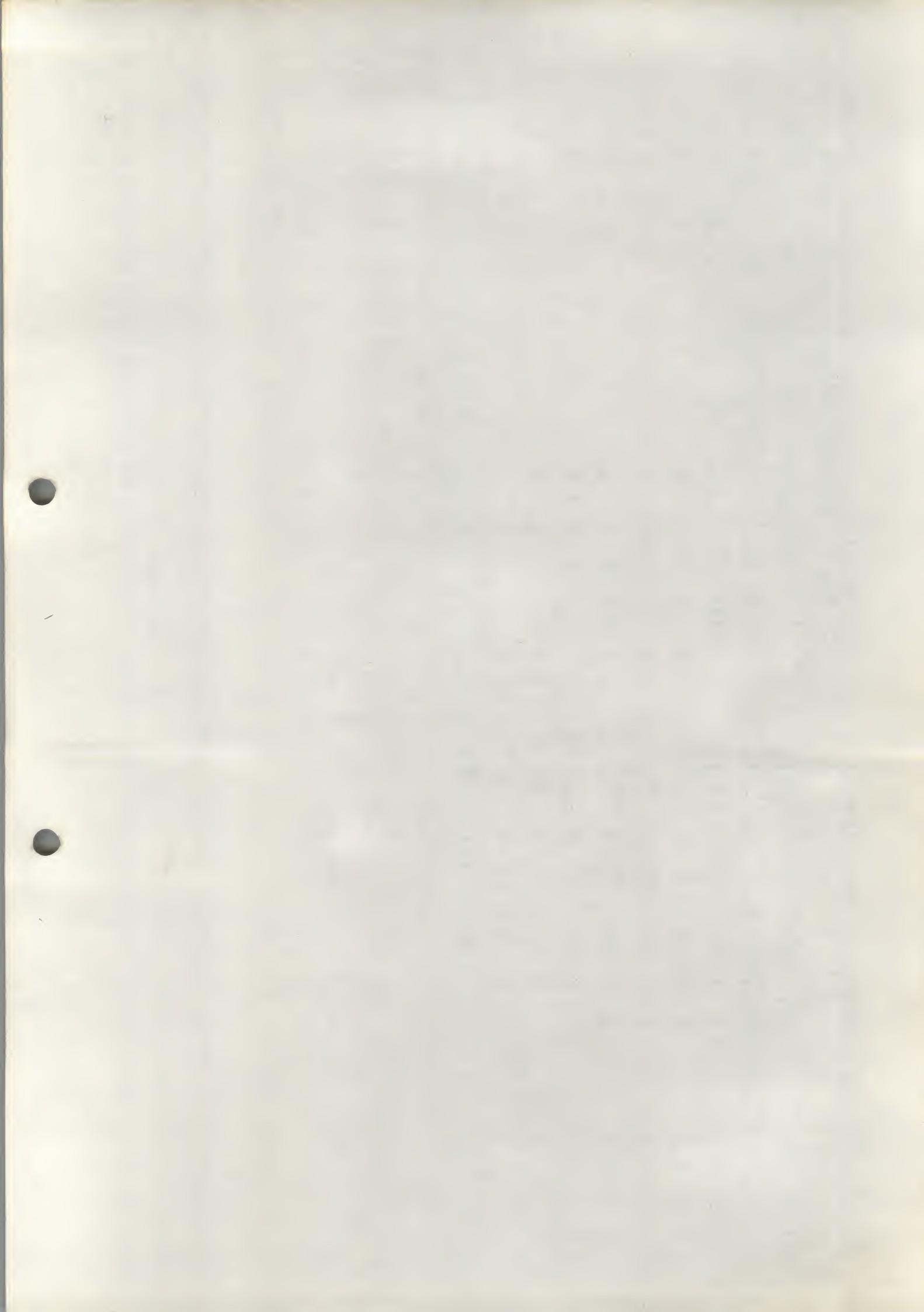




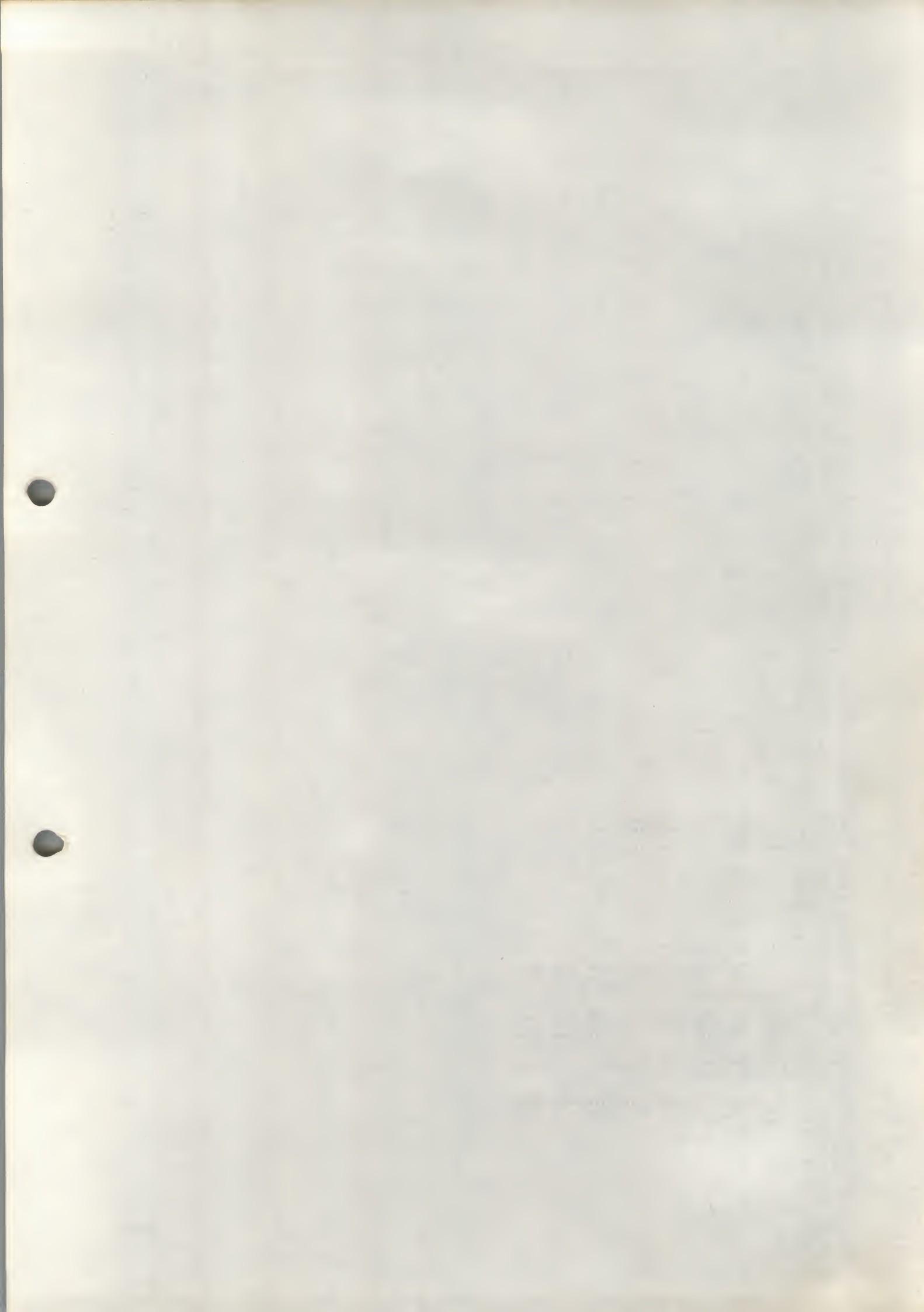
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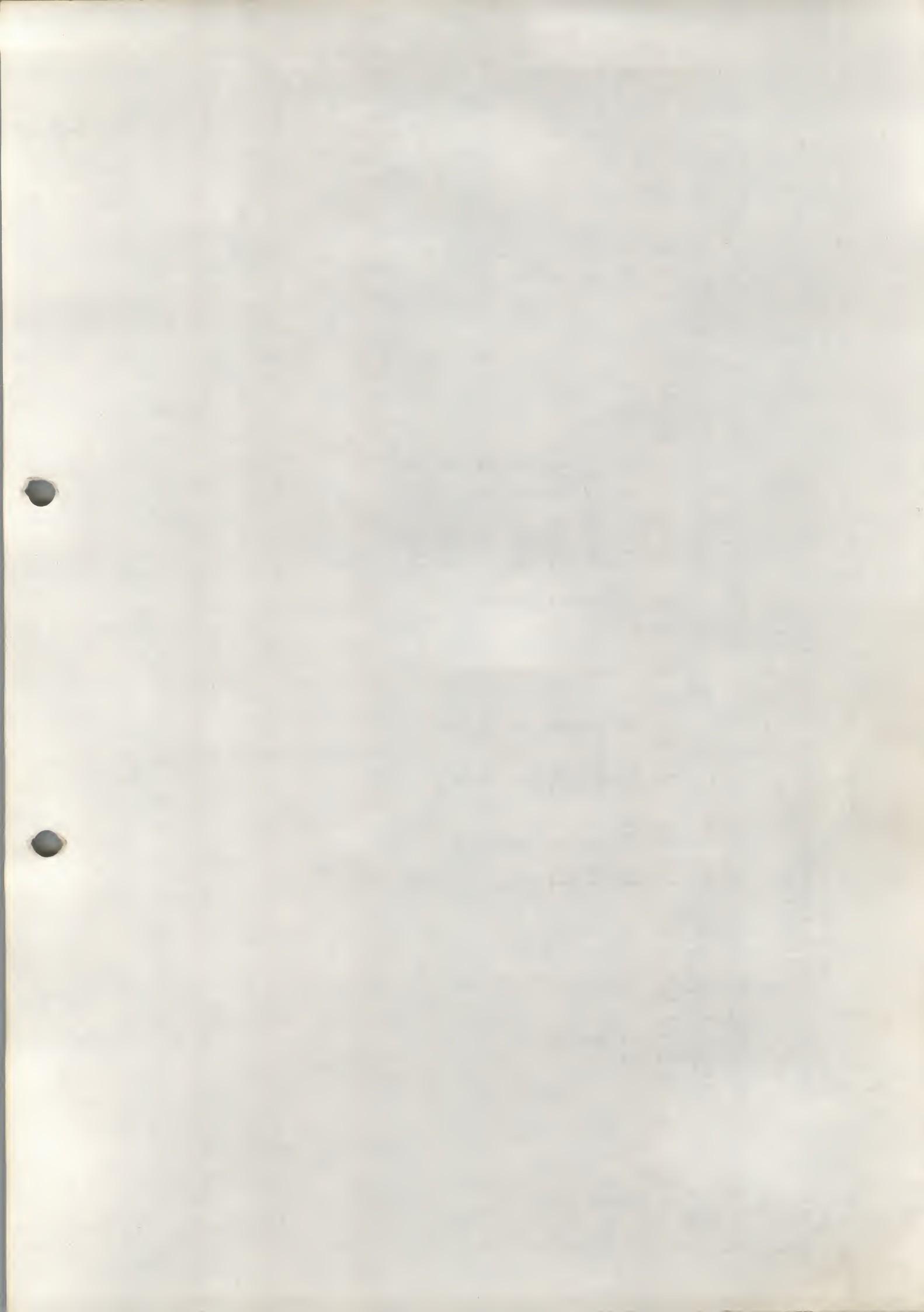




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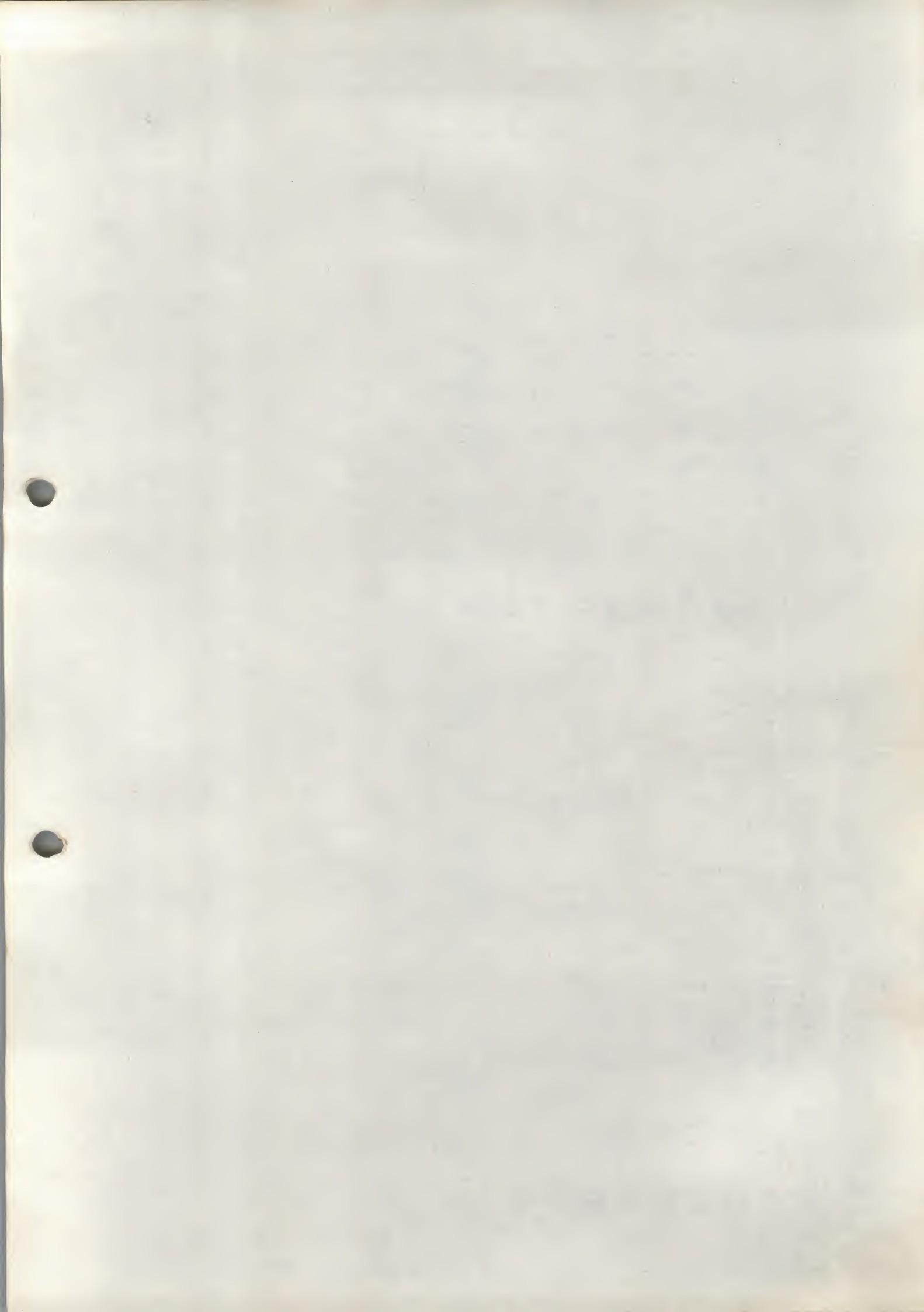


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ROTHER	2041	2093#		
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PPACE	5579#	6050	6053	
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PPOLIS	364#	1919	2791	4036
PPERMS	1846	1849	1850	1933#
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PPRINR	1689	1692#		
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PPUTCH	325#	1475	1702	1785
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RESET	374#	1855	1936	2011
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PRINTG	1661#	1712		
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PRINUM	362	2618#	2628	
PRINVA	2554	2556	2558#	2569
PRLOOP	2588#	2596		
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PRTEMP	313#	2587	2588	2593
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	4299	4313		
PTYRE	2597#	2602		
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PSYMTA	283#	1425	1427	1435
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GERROR	2781	2794#		
GRCHA	4661	4701#		
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RBSWCH	372#	3659	4781	
READ	470	1375#		
READY	317#	1379	1395	1922
READY	1939	4259#		
REALTI	488	5419#		
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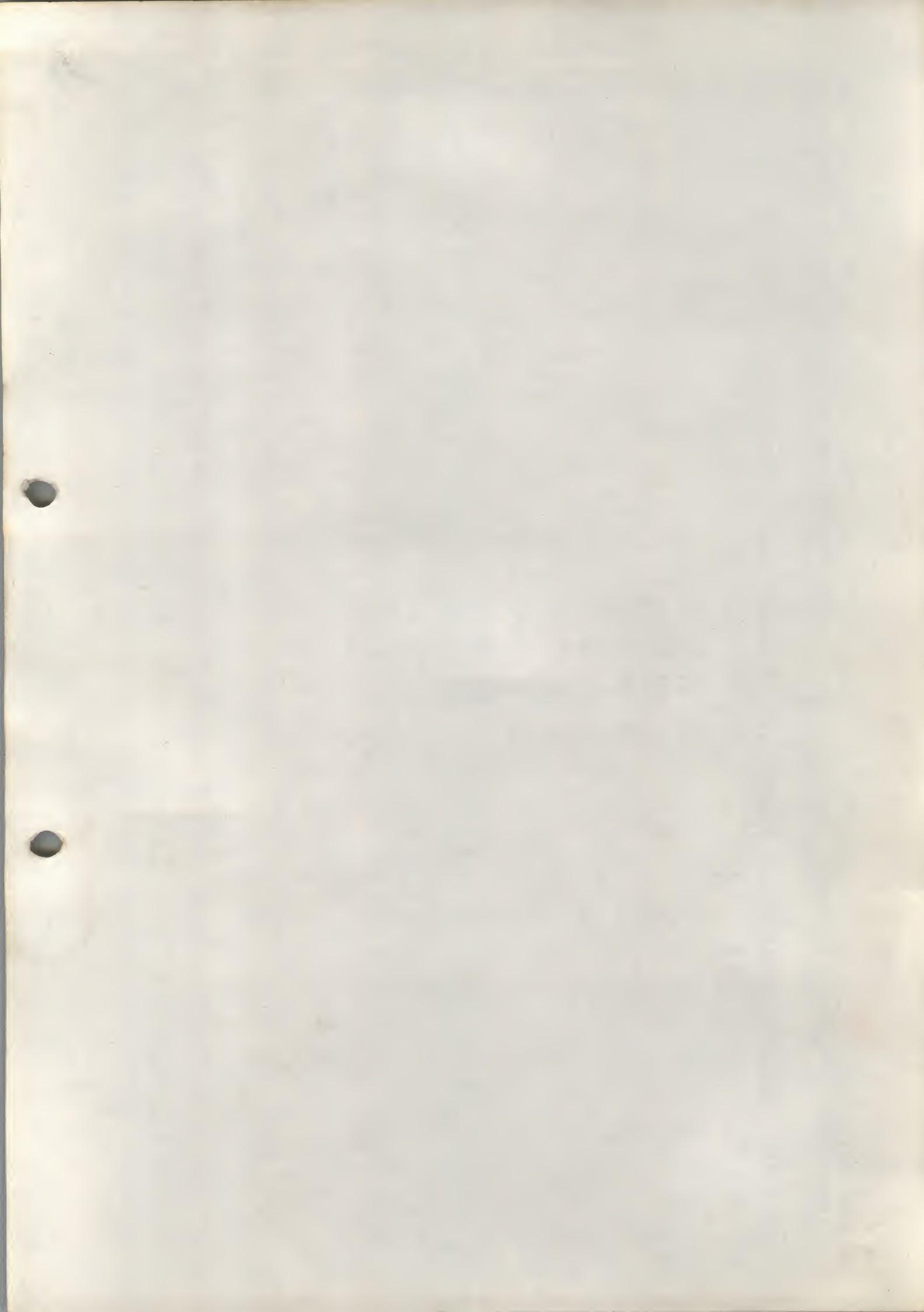


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RETNER	816	8734	
RETURN	864	8110	
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RHELT	374	41298	4137 4138
RHO	968	3485	34876
RNOJMP	34838	3711	
RTEAR	49626	5656	
RUBO	463	36564	
RUN	1838	18396	
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RUNLUP	18678	1884	
RUNNOT	1872	18799	
RUNZIN	1891	19108	
RUNZLU	18524	1915	
RUNZNO	1895	19116	
SCAFOR	14359	1410	
SCAWTC	892	18668	
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SEPRAY	489	54236	
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SETUP	1664	52098	5215
SGN	8549	841	846 847 861 867 986 3739
SIMPLV	2426	24316	
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SINCHA	4662	47058	
SJUMP	452	4538	
SKIPIT	468	471	599 6546 1371 5059 5912
SLASH	1553	11778	
SLOOP	357	20358	
SLSHTH	1178	1180 11828	
SNUMFL	3318	1963 2244 2252 2291 2345 2405 2406 2407 2408	
SPACER	2445	2452 2453 2464 2466 4120 4236 4237	
SPECIN	5708	1343 5153	
SPLEFT	3798	1383 4114 5007	
SGEEXIT	3528	35548	
SGLOOP	35438	3553	
SQR	984	35248 3555	
SSERR	1247	1256 13438	
SSFIX	32258		
SSONE	523	530 5448	
SSTHO	524	536 5458	
STAR	1152	11748	
START	57	6088	
STICKI	368	31548 4157	
STOP	465	473 19368	
STDVAR	353	431 5418 549	
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SYERR	343	479 493 501 502 503 504 505 506 507	
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TIM2	55478	5635 5671 5882 5888 5964	
TNP	3338	1898 1901 2211 2214 2223 2419 2428 2429 2447	
TOOLON	2475	3261 3072 3074 3166 3175 3177 3191	
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TRYAGI	33128	3338	
TRYSTE	766	7788	
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UDOPER	1130	12028	
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UIEXT4	5676	58928	
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